User Manual

Delirium User Manual

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Getting Started

Introduction

Welcome to Delirium, the amazing package of special effects plugins for Adobe After Effects, Adobe Premiere Pro, Apple Final Cut Pro, Autodesk Combustion and Boris RED. With the Delirium plugin effects you can create an amazing range of animated imagery through the use of a wide range of possible effects including color manipulation, distortion, particle and 3D tools.

Many of the effects are set up to get you started with a certain effect in mind. For example, Fire will look great as soon as you apply it. It will also AutoAnimate™ meaning that it will automatically animate and look great without setting key-frames. Many of the particle effects need no lengthy adjustment of parameters to get excellent results immediately.

We will be adding more sample projects to our web site, and as a registered user you will gain access to that area. You will be informed via e-mail when new sample projects and presets are available for download.

System Requirements

http://www.digieffects.com/compatibility.html

Installation

http://www.digieffects.com/support/installation_guide

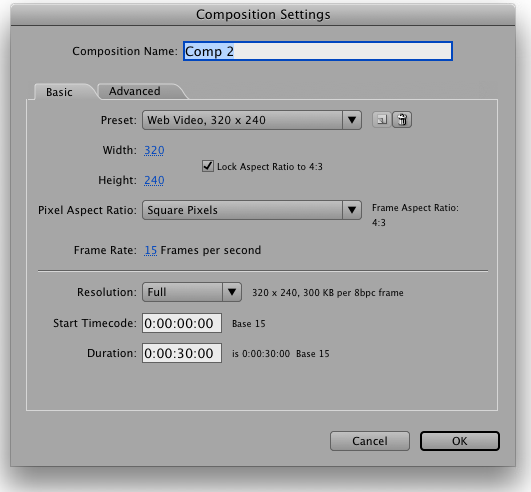
Tutorial

This tutorial section will take you through a typical Delirium rendering operation. This section will show you how to do the following: Import Footage, Apply a Delirium Effect to a Layer, Choose a Preset, Save a Preset and Render a Movie with a Delirium effect.

At the end of this tutorial, you will know how to use Delirium to apply a Delirium effect to your footage and how to modify the Delirium settings to achieve the look you want.

1 To begin, Launch After Effects and create a new project (Command-N).

2 Now, create a new composition. Set the composition size that is appropriate for your video card (in this case 640 x 480). Set the duration to the length of your clip.



Importing Footage

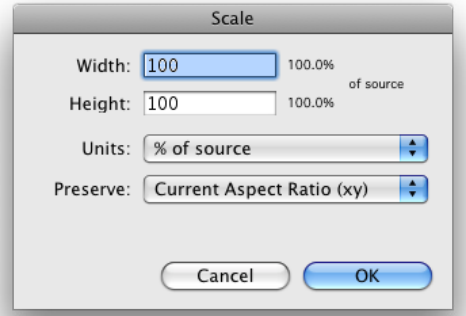
3 Import your footage (command-I) as you normally would. In this example we are using the file “DE Logo Alpha=0”, found in the “Delirium Projects” folder on the

Delirium CD.

Importing Footage is an important step and requires that you have some information about the particular video hardware (Avid, Media 100, etc.) that was used to digitize your footage. You will need to know which field the clip starts on (Upper/Lower or Odd/Even).

4 Drag and drop your footage into the composition (Comp 1). The Composition should now be the top-most window. Locate the footage in the "Time Layout" window.

5 Resize the "DE Logo Alpha=0" layer by clicking on the layer in the composition window and selecting "Scale..." from the submenu "Geometrics" from the menu "Layer".

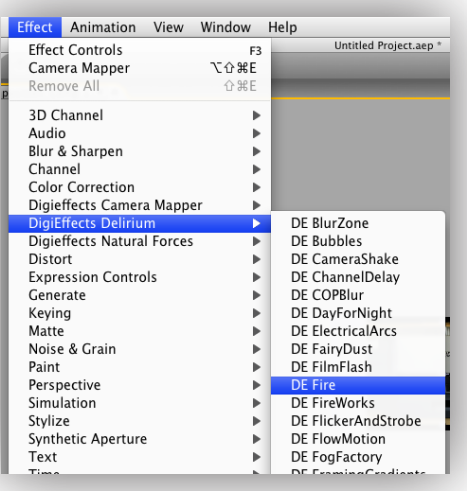


Applying a Delirium Effect to a Layer

6 Choose "DE Fire" from the "Filters" Menu under the "DigiEffects Delirium" sub-menu. The Delirium Fire effect will then be applied to that layer. Allow it to render the initial effect.

Choosing a Preset

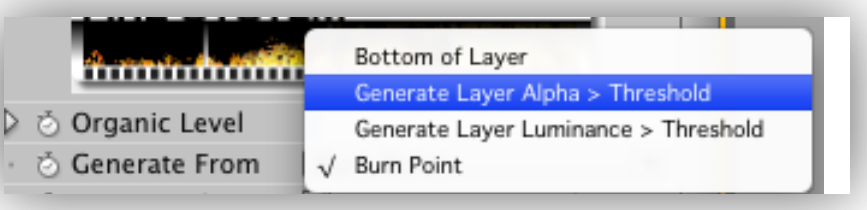
7 Pick a preset by clicking on the “Preset Pop-up” from the Presets swatch. For this example, choose the “Burn From Bottom” preset. We will then modify this preset to burn the logo.



Modifying a Preset with the Delirium User Interface

We will now modify this preset to change it from burning at the bottom of the layer to burning the logo based on it’s alpha channel.

8 Change the “Generate From” to “Generate Layer Alpha › Threshold”. This will cause the flame particle system to be generated wherever the alpha of the image is opaque. In other words, the flames will burn from the logo.

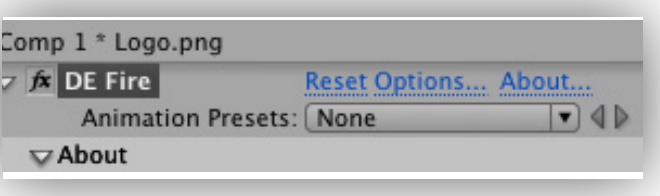


9 The flames should now be growing from the DigiEffects Logo. You can replace the DigiEffects logo with your own logo by using the “Replace Footage” command from the “File” menu. See the After Effects manual for details.

Saving a Preset

Once your settings are “dialed-in” and you are happy with them you will want to save it as a preset. A Preset contains all the parameters of the Delirium Fire plug-

in. Saving a preset is very easy to do with Delirium.



10 From the After Effects user interface, click on “save” in the “Preset” swatch.
11 Name it “Tutorial Preset” and press “OK”. This has saved the current state of the parameters as a preset.

Rendering a Movie

Now that you have modified the CineLook parameters to your liking and saved your preset, you will want to render out a movie to see how it looks.

12 Choose “Make Movie” from the “Composition“ menu in After Effects.
13 Name the new movie “Delirium Tutorial Movie”. Click save.

14 The “Render Queue” will now be the top most window. Click on the “Render Settings” option.

15 Set the render settings to the following:

Quality : Current Settings
Frame Blending : Current Settings
Field Render : Depends on your video card
(Upper = Odd, Lower = Even)
3:2 Pulldown : Off
Frame Rate : 29.97 or 30 (depends on video card)

16 Set the “Output Module” to be appropriate for your digital video card. Check the “Output Module” section of the After Effects user manual for more information on what each parameter does, and how to execute a test to find out which frame your

video system renders first (Upper or Lower field first.)

17 Now that all settings have been entered, click “Render” to create the movie.

18 Since After Effects is not optimized for playback of hardware assisted video systems, you should play back the footage in the video system that is appropriate for your card.

Congratulations! This concludes the Delirium tutorial.

Using the Plug-ins

Using the Plug-ins

We think it would be helpful to tell you the basic idea behind how these plug-ins together, how they work in a general way and a discussion of the terminology. This section is a general explanation of many underlying concepts that drive Delirium.

Particle Systems

Delirium has a number of differenet effect plug-ins including a collection of particle systems. These particle systems simulate or create certain specific effects. Most other companies particle systems are general purpose and users have a hard time creating the desired effect. Delirium addresses the root of this problem by creating plug-ins that are specific to one effect. For example, the Fire plug-in makes a great looking fire effect as soon as it's applied to a layer.

Delirium delivers a set of particle based effects that are designed to handle specific tasks extremely well while continuing to be easy to use. It used to be that creating effects like realistic snow with particles that look like snow and truly move like snow would take hours or days to get right. With the Delirium Snow plug-in, the solution is immediate and simple. This AutoAnimation idea is at the core of all of our particle systems that simulate natural phenomenon (like bubbles, fire, smoke, rain, fireworks and others.) With a basic understanding of how the plug-in works, you can create a great looking effect in record time.

It is apparent that plug-ins like Snow, Rain and Fire are specialized particle systems. But there are many other effects in Delirium that are also based on this particle system idea and therefore the discussion of how these particle systems work is also useful for these plug-ins. For example, plug-ins like Electrical Arcs, Visual Harmonizer, HyperHarmonizer, Nexus, Sparks, Sketchist, Schematic Grids, Retinal Bloom and Fireworks are all based on particle systems. While they may not seem like particle systems, the effects are generated with particles and many of the parameters are the same.

Each of the particle system plug-ins are broken into two or more sections. The first section is always the Image Mode section. This section deals exclusively

with how the effect will mix into the source footage.

“Channel Operations” are the methods by which two images are mixed together. The “Composite Modes” are Channel Operations that are used to blend the effect with the source layer. The Particle Composite Mode handles how the particles that make up the effect will blend with EACH OTHER before they are composited with the source layer.

“Alpha Threshold” and “Alpha Weight” provide control over opacity of the particles. These two parameters change the luminance of the particle image into an opacity / transparency information.

The second section is usually called the Effect System section (called Fairy System, Electrical System, etc. depending on the plug-in) with a few of the effects having several different particle systems in them. When there are several effect sections we have grouped the controls that contribute to the same portion of the effect.

These systems define the motion characteristics and overall look of the effect. For example, in Electrical Arcs the “Electrical System” determines exactly how the arcs will be subdivided, how long the branches and sub-branches will be, the color of the lightning, etc. The Effect Systems, more than any other part of the plug-in, define the characteristics of the effect and most of your time adjusting the parameters should be spent in this area.

Many of the plug-ins have a “Glow” section. The controls for Glow are essentially exactly the same and will give the same results. Once you get a feel for how this section behaves for one plug-in, you will understand what it does in any plug-in that includes Glow.

Generally, it provides a glow around the outer edge of the effect generated by the Effect Systems. It will have a “Radius” and “Intensity.” The “Radius” determines how far the glow stretches from the effect and “Intensity” determines how strongly it will glow.

Animated Graphic Element Generation

Many of the plug-ins in Delirium generate graphic elements, or as Trish Meyer of Cybermotion refers to it, “creating something from nothing.” Plug-ins that fall into this catagory (often are also a part of the particle systems above) include Nexus, Hyper Harmonizer, Visual Harmonizer. These plug-ins are not trying to simulate real world events like fire or snow. Instead, they are designed to generate interesting shapes and
colors that give an engaging appearance in a composition.

They are like textures in that they are not the main focal point in a composition, but they are more interesting and dynamic than any texture could be. The best way to see what these effects can do is to load one of them up and check out the presets. One of my favorites right now is the Nexus plug-in and the Shelluloid preset. It is an interesting look and the effect auto-animates (in After Effects 4, press the zero key on your numeric keypad to have it load the effect into ram and play back in normal time).

AutoAnimation™ Effects

One of the key features in Delirium is the ability to automatically animate an effect without setting keyframes. Most other plug-ins require you to set several keyframes before they do anything interesting. With Delirium, many of the plug-ins create animated effects without setting keyframes. We call this feature AutoAnimation.

For example, when you apply the SnowStorm effect to a composition, it will automatically begin generating snow from the first frame. The effect actually begins before the layer starts on the composition time-line. By default, the "pre-roll frames" is set to 20, so you are seeing the results of the SnowStorm after 20 frames. In fact, we created plug-ins with default settings to be used without ANY tweaking of the controls. This is a benefit that will make your job of animating these effects much easier.

Control (or Parameter) Naming Conventions

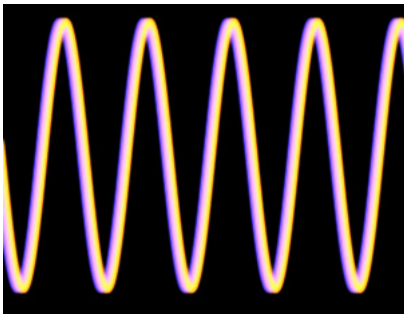
In many cases the controls (also called "parameters") in Delirium are named with terms used in mathematics. We realize that this is in many cases not very user friendly. But we also recognized that these terms are generally the most accurate and applicable across many plug-ins.

The concepts are pretty simple but the words can be a little scary. In many cases we could have used different terms (like height instead of amplitude in Visual Harmonizer) but in many cases that would not have been an acceptable substitution.

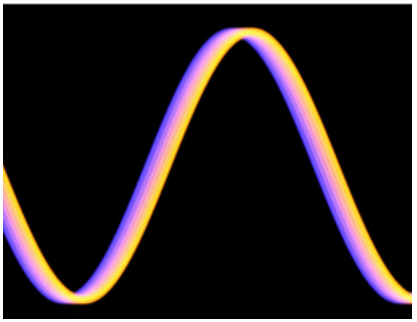
For the sake of consistency we have kept the mathematical terms. At the same time, we will use some images to help define some of those terms.

Amplitude

Often height could be substituted for Amplitude. Generally, this determines how extreme the swings are in the effect. For Visual Harmonizer, you can see below what low and high Amplitude will create:



Amplitude Set to 40

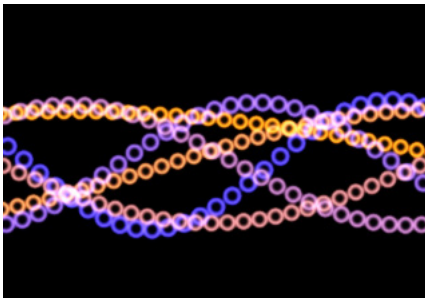


Amplitude Set to 100

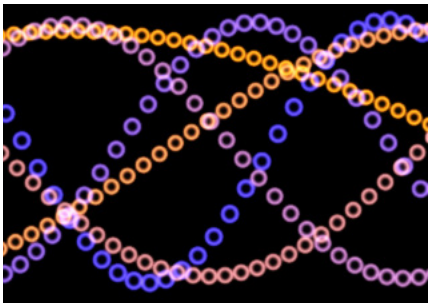
But in cases like Camera Shake the effect does not easily translate to height. In this case, Amplitude really is more the distance that the shake causes the image to travel. So in the case of Camera Shake, Amplitude is distance.

Frequency

Frequency is defined as how often (i.e., how frequent) something occurs. In the case of Visual Harmonizer, frequency determines the number of waves in each harmonizer.



Frequency Set to 5

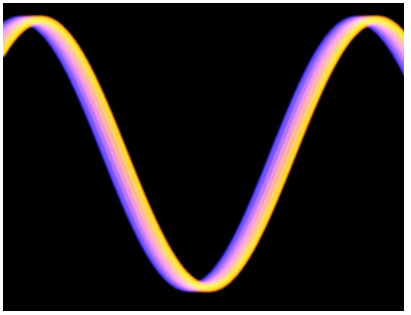


Frequency Set to 20

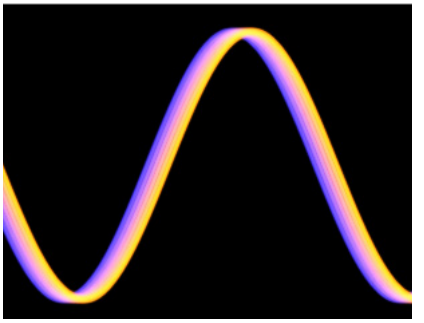
In the case of Camera Shake, Shakiness Frequency determines how often the camera will shake (i.e., frequency determines when, amplitude determines how far).

Phase

Phase determines where some portion of the effect will occur. The easiest way to see this is to look at two examples.



Phase set to 35



Phase set to 0

Notice how the position of the wave has moved between the two phase values. The position of the wave on the harmonizer is determined by Phase.

Some of the plug-ins have a begin and end value for each of these. The plug-in will interpolate between these two values to give interesting results. So, by setting all of these parameters to different beginning and ending values you can create visually stunning imagery.

Composite Modes

Composite modes control how the colors of the Effect interact with the colors of the source layer (also called image). There are at most two different composite modes that can be used. The first is the "Image Composite Mode" which defines how the entire effect will be mixed with the entire source image.

The second composite mode defines how the particles will be mixed with the other particles when the particle system is rendered. The Particle Composite Mode determines the manner in which the particles will combine with each other if there is any overlap between particles.

Apply Mode

Use Source
Use source composites the effect over the layer that it is applied.

Effect Only
Effect Only will hide the layer that the plug-in is applied and show you only the Effect. This is very useful for when you want to see only what is happening with the effect. You can also apply the effect to a solid (Command - Y) and use "Effect Only" to retain the effect's alpha information for use in a general composition.

Use Source Mode

Effect in Front
Effect in front places the Effect directly in front of the layer to which the plug-in is applied.

Effect Behind
Effect behind places the Effect behind the layer to which the effect is applied.

TIP This setting is most easily seen when applied to a layer that has an alpha channel. The Effect will appear from behind the layer.

Composite Effect in Front

Composite Effect in Front works exactly like “Effect in Front” except that it enables the Composite Mode controls (below). Use this setting when you want to use a composite mode other than Blend to composite the Effect with the source layer. (Like Add or Screen.)

Composite Effect Behind
Composite Effect Behind composites the Effect with the layer ONLY when Subtract and Difference are selected in the Composite Mode pop-up. Because of the subtractive nature of those two composite modes, the results will be different than the results of “Composite Effect in Front.”

Composite Modes
Composite Mode controls how the effect will combine withthe source layer. This is similar to the After Effects “Transfer Controls”, but we have built them into the plug-in so that presets can be made with specific composite modes.

Add
Add combines the color values of the layers. The resulting color is always brighter than the original.

Screen
Screen multiplies the inverse brightness values of the colors in the layers. The resulting color is never darker than the original.

Subtract
Subtract uses the Effect to reduce the brightness of the source layer but does not roll over beyond zero like difference, so the extreme colors do not occur. The resulting color is always darker.

Difference
Difference subtracts the color values of the Effect and Source Layer displays the absolute value of the result. Colors can look psychedelic.

Blend
Performs a simple Blend.

Blend Using Alpha
Blend using Alpha uses the alpha of the effect as a weight to blend the Effect with the Source Layer.

Multiply
Multiply mathematically combines the Source Layer and Effect color values in the layers and divides the result by 255. The resulting color is never brighter than the original.

Lighter
Lighter compares the channel values of the underlying and layer colors and displays the lighter of the two.

Darker
Darker compares the channel values of the underlying and layer colors and displays the darker of the two.

Scales
This is a special case composite mode to be used on an experimental basis. It causes extreme color distortions.

Overlay
Overlay *Multiplies* or *Screens* the colors depending on the base color. Patterns or colors overlay the existing pixels while preserving the highlights and shadows of the base color.

Hard Light
Hard Light *Multiplies* or *Screens* the resulting color depending on the original layer color. If the underlying color is lighter than 50% gray, the layer lightens as if it were screened. If the underlying color is darker than 50% gray, the layer darkens as if it were multiplied.

Soft Light
Soft light *Darkens* or *Lightens* the resulting colors, depending on the layer color. If the underlying color is lighter than 50% gray, the layer lightens. If the underlying color is darker than 50% gray, the layer darkens.

Minimum
Minimum uses the mathematical minimum of the Effect and Source Images color values to replace the original image. This is a modified version of Lighter.

Maximum
Maximum uses the mathematical maximum color value to replace the original footage. This is a modified version of Darker.

Bitwise OR, Bitwise AND, Bitwise XOR
Each of these settings do similar but slightly different operations to the color channels. Exactly what they do is hard to explain without using mathematical formulas, and even then, they would not easily translate into a few descriptive adjectives. We suggest that you just try them out and see what they do. Generally, they will give very odd looks that reshuffle the colors through different color bands.

Alpha Threshold
Alpha Threshold defines a transparency or "alpha" for the particles based on the luminance value of the image used to define the particles. By increasing this number, less of the particle will be visible. The opacity of the particle will be clipped starting at the darker colors then transitioning to the lighter colors. It effectively eats away at the darker areas first and works its way to the lighter colors using this information to define the opacity/transparency of the particle image.

Alpha Weight
Alpha Weight defines the overall opacity of the particles. Larger values will make the particle will appear more opaque (harder to see through). The lower the value, the more transparent the particle will become.

Random Seed
Random Seed is the seed value (think of it as a start point) for any random values generated within the plug-in. Do not animate this as it will cause the effect to jump or randomly change parameter values every frame and the animation will not look smooth. It will look "buzzy" – which has it's own aesthetic appeal when the composition frame rate is reduced to around 3-6 frames per second.

TIP This is often used to reshuffle the overall look of the effect without changing the parameters.

Blend Original (Also just "Blend")
Blend Original will blend in the unaffected original source layer with the Effect. The higher this number, the more of the original layer will be blended in with the affected footage.

Particle System Generators

Generate From
This sets the locations the particles of the particle system will be created from. You can choose the particles to be generated from the Top or Bottom of the layer, from a point, based on the brightness of an image, or based on the alpha channel of an image.

Bottom/Top of Layer
Bottom of Layer will generate particles from the bottom of the layer to which the effect has been applied. "Top" will generate from the top.

Generate Layer Alpha > Threshold
Generate Layer Alpha > Threshold is used to generate particles from an image that has an alpha. When this is selected, the particles will be generated in areas that are inside the alpha mask. "Generate Threshold" defines area inside the alpha mask that can generate particles. When the "Generate Threshold" slider (below) is set to zero, all areas will generate particles. As this number increases, the more transparent areas of the alpha will no longer be able to produce particles.

TIP This is the best way to generate particles from text or a company logo that has an alpha channel.

Generate Layer Luminance > Threshold
"Generate Layer Luminance > Threshold" is used to generate particles from the lighter areas of an image. The "Generate Threshold" slider (below) controls which areas of the image can generate particles. When this slider is set to zero, all area's of an image can generate particles. As the "Generate Threshold" number gets higher, darker areas of the image will no longer generate particles. The "Generate Threshold" eliminates potential particle-producing areas from darker areas up to the brighter areas. Larger threshold values mean only bright areas will produce particles.

Generate Point (Also Bubble Point, Fire Point, etc)
"Generate Point" mode uses the generate point control (below) to define a point in the layer where the particles will be created.

Integrate Over Time
Important Note Check this box if you plan on key-framing any of the controls. If you are not keyframing any of the parameters, leave this box unchecked and rendering time will decrease (go faster).

Generate Source
None
1. "Some layer"
"Generate Source" defines the layer that will be used to generate particles. This may seem a bit confusing at first but it is a very powerful control. It allows for the use of another layers' image or alpha channel to control the generation of particles.

NOTE The objects (mask or pixels) that the snow falls onto cannot be moving. If it is, the particle generation information will become confused. The particles will not stick to moving objects or be properly generated from the mask.

Generate Threshold
"Generate Threshold" becomes active when "Generate Layer Alpha > Threshold" or "Generate Layer Luminance > Threshold" is selected in the "Generate From"

pop-up menu. When one of these generate methods is selected, this slider controls the threshold level at which particles will be generated. When this is set to zero, any luminance level or alpha level can generate particles. When this is set high, only the brightest luminance levels or most-opaque alpha-levels will generate particles (i.e., this will make it so that darker or more-transparent areas cannot generate particles.)

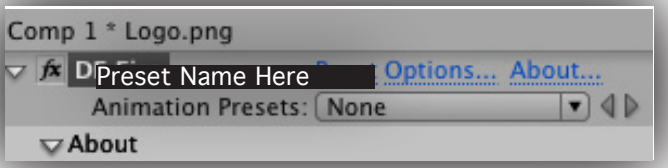
Generate Point (Also Bubble Point, Fire Point, Snow Point, etc)
This control becomes enabled when the "Generate From" control is set to "Generate from Point". This control will set the point where the particles are created.

Preroll Frames
This control allows you to start the effect before the first frame of the clip. This control gives you the ability to make the effect begin generating particles before the clip starts on the timeline.

If you did not have this ability, the effect would begin with zero particles.
By pre-rolling, you can have the effect generating particles in the first frame of the composition. The value corresponds to the number of frames before the first frame that the effect starts generating particles.

Presets

The Presets user interface provides a way to load and save parameter settings for this plug-in.



Included with the installation are over 100 presets designed by DigiEffects. It is possible to save additional presets by setting the controls of the effect and then clicking the Save button. The next time that the presets pop-up is selected, that preset will be in the list.

To remove a preset, load the preset and click the Erase button. A dialog confirming the erase operation will appear, click "OK" to remove the preset permanently. You can also over-write (replace) an existing preset by saving it with the same name. You will be asked to confirm the replacement as a safety measure.

TIP All presets are saved into the System Preferences folder. If you want to pass them along to someone else, just pull out the preset file and put it into their presets folder. The exact path is:

`Hard Disk:System Folder:Preferences:DE XXX:Presets`

where XXX is the name of the plug-in.

We hope this information will help you as you work with the Delirium plug-ins.

Plug-in Descriptions

Bubbles

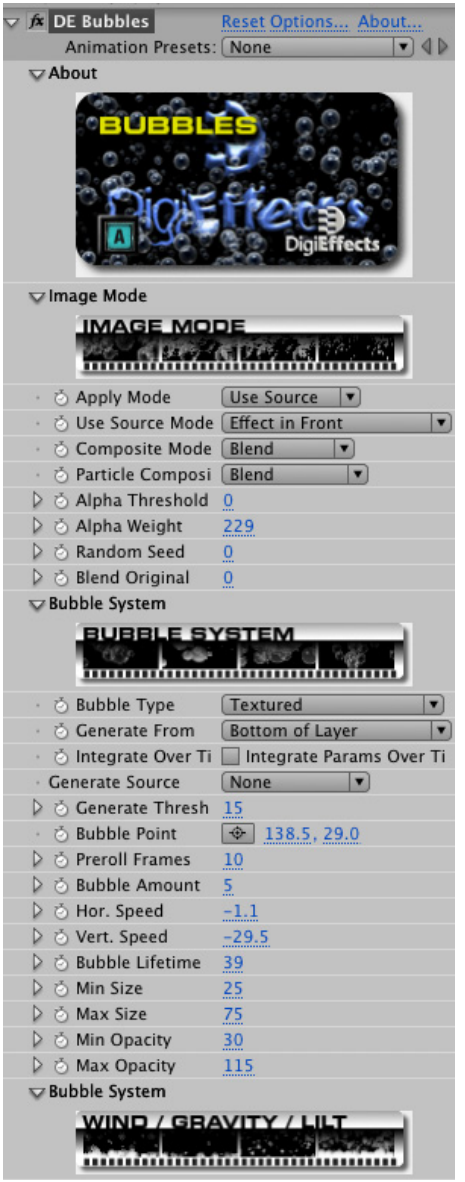
Bubbles will easily create any type of bubble effect, from a fizzy drink to bubbles trailing a shark. You can generate bubbles from a logo and the bubbles can automatically create liquid distortions.

Apply Mode determines how the bubbles will be blended into the footage to which the bubbles are applied.

Use the bubble system to control how the individual bubbles will appear including speed, size and amount. Use the bubble system to control the motion of the bubbles.

The distortion controls give you the ability to distort or give the footage under the bubbles a warped look, as if looking through a lens.

NOTE When the bubbles are generated on an image that has an alpha channel (a logo with alpha or mask, for example) the bubbles will generate particles inside the masked area and the bubbles will drift outside to the alpha.



Bubbles generated from Bottom of Layer.

Bubbles generated fromsource layer alpha channel.

TIP Add, Screen and Lighten mode are often much better choices than Blend for bubbles. Try using Composite Effect in front and these three Composite Modes to see which results will be best.

Image Mode

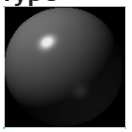
Apply Mode
Use Source Mode
Composite Mode
Particle Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Generate From
Integrate Over Time
Generate Source
Generate Threshold
Bubble Point
Preroll Frames

Controls in this section are described in the “Using the Plug-ins” section at starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

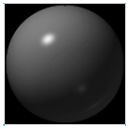
TIP Reduce Alpha Weight to zero to only show the bubble distortions.

Bubble System

Bubble Type

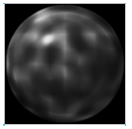


Harsh Edge



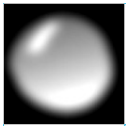
Droop

Textured



Sphere High Contrast

Sphere Low Contrast



Dark Texture

Bubble Amount
This gives you control over the number of bubbles that the effect produces per frame. The greater the number of bubbles, the slower the effect will render.

Vert Speed
Vertical Speed controls how fast the bubbles will rise. This is an average speed with some bubbles moving faster than others in order to give the appearance of depth.

Bubble Lifetime
Bubble Lifetime controls how long the bubbles can stay on the layer. At the end of their lifetime they will pop.

Min Size
Min Size controls the minimum or smallest size of any bubble on the layer.

NOTE Bubbles will start at a smaller size than the minimum size and grow to a size somewhere between minimum and maximum. Because of this, you will have some bubbles that are smaller than your minimum size while they are growing to their final size.

Max Size
Max Size controls the largest, or maximum size of your bubbles.

NOTE If your minimum size is greater than your maximum size, the minimum and maximum controls will be reversed.

Min Opacity
Min Opacity controls the minimal amount of opacity or transparency of a bubble.

NOTE Each Bubbles opacity will be randomly set between the minimum and maximum amount. This also controls the amount of relative distortion.

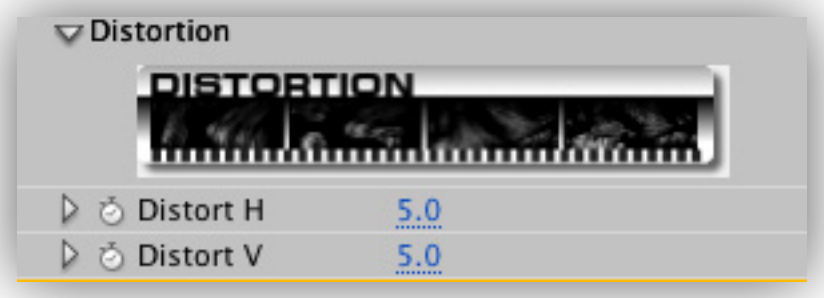
Max Opacity
Max Opacity controls the maximum amount of opacity or translucency of a bubble. The higher this is set, the harder it will be to see through a bubble.

Horiz Dispersion
Horiz Dispersion controls how much the bubbles will randomly float horizontally. When this is set to zero, the bubbles will drift straight up. The higher this number is set, the more the bubbles will move with some horizontal direction.

Wind Horiz.
Wind Horizontal controls how much the bubbles can be pushed left or right by the force of “wind”. When this is set to zero, the bubbles will float straight up (other than when this is set high and positive, the bubbles will move from left to right as they float up. When set high and negative, the bubbles will move from right to left.

Wind Vert
Wind Vert increases or decreases the vertical speed of the bubbles. This can be used to increase the initial speed which in many cases starts at zero.

Distortion



NOTE: With the Effect Behind setting, the default settings will use the bubbles to distort the layer. To control or remove this effect, go to the istortion Controls (below). To remove this effect, set Distort H and Distort

Distortion determines how much the bubbles will distort the footage to which the bubbles effect is applied to. This distortion is based on the bubbles and so will have the same shape and location as the bubbles.

TIP Using effect behind and high distortion levels, all that will be seen is the bubble distortions, an interesting effect.

Distortion H
Distortion H determines the amount of horizontal distortion will be created.

Distortion V
Distortion V determines the amount of vertical distortion will be created.

Camera Shake

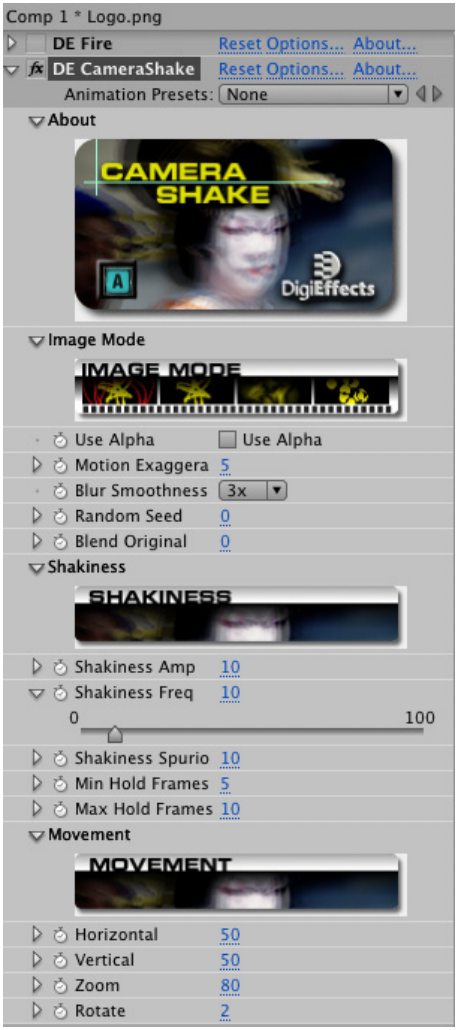
Camera Shake simulates a camera hit by random forces and can be rendered with exaggarated motion blur effects.

The idea behind Camera Shake is to create the “Shaky Camera” effect without setting numerous key-frames. Camera Shake internally creates a series of keyframes with the values of the parameters that you define. It then creates randomized motion from those keyframes and applies motion blur including exaggerated motion blur.

You can control the amount (amplitude), speed (frequency) and “spurious” (random movement) for each keyframe. You can control how many frames the current keyframe will be held by using the “Min Hold Frames” (minimum number of frames to “hold” the keyframe) and “Max Hold Frames” (maximum number of frames to “hold” the keyframe).

You can also control the overall amount of horizontal, vertical, zooming and rotational movement within the frame using the “Movement” parameters.

You can also over-exaggerate the motion blur using the “Motion Exaggerate” parameter, which extends the motion blur in the current direction. You can also determine the number of blends used to create the motion



blur using the “Blur Smoothness” parameter.

To modify the overall effect, change the “Random Seed”. This will cause the order and amount of parameter changes to be altered, giving a slightly different version of the effect.

This plug-in requires a little experimentation, as it is one of the few plug-ins that creates key-frames internally. Most plug-ins apply their effect from keyframes, but this one creates them itself, internally and invisibly, from the parameters you supply. The only parameters that you may want to keyframe yourself are the “Movement” parameters.

Otherwise, you will probably want to have the plug-in create keyframes for the motion.

Image Mode

Use Alpha
If you want the original source layer to show underneath, check the “Use Alpha” parameter.

Motion Exaggerate
Set this to non-zero to exaggerate the amount of motion blur. Higher values look more blurry but take longer to render.
Blur Smoothness
Increase this parameter to make “smoother” motion blurs. This pop-up controls the smoothness of the blur applied to motion. Usually this does not need to be set above 5. Numbers above that can begin to posterize solid colors, and render times become longer.

Speed Tip The higher this number, the slower the render.

Random Seed
Random Seed is the seed value (think of it as a start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly

change values causing the animation will not be smooth.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Shakiness

Shakiness Amp
Shakiness Amp is the maximum “distance” of the Shakiness of any keyframe value (horizontal, vertical, zoom, rotate).

Shakiness Freq
Shakiness Freq is the maximum “speed” of the Shakiness of any keyframe value (horizontal, vertical, zoom, rotate).

TIP If you want the camera to look like it was bumped, keyframe Amplitude and Frequency from zero to the amount that you want over two frames, then keyframe it back down to zero over 10-30 frames.

Shakiness Spurious
Shakiness Spurious is the maximum amount of randomness of any keyframe value (horizontal, vertical, zoom, rotate).

The controls that define Camera Shake settle into an arbitrary space between the various minimum and maximum settings in the plug-in. Once this arbitrary place has been defined by the plug-in, the effect holds that shaky camera look for a certain number of frames. Then the plug-in will change to another point between the various minimum and maximum settings and hold that shaky camera look for another certain number of frames. Shakiness Spurious efines how often the plug-in changes or "reshuffles" the controls (i.e., it defines that "certain number of frames").

Min Hold Frames
Min Hold Frames is the minimum number of frames to hold any keyframe.

Max Hold Frames
Max Hold Frames is the maximum number of frames to hold any keyframe.

Movement

Horizontal
Horizontal is the weight of keyframe to apply to the horizontal movement. Lower values mean less movement, higher values mean more movement.

Vertical
Vertical is the weight of keyframe to apply to the vertical movement. Lower values mean less movement, higher values mean more movement.

Zoom

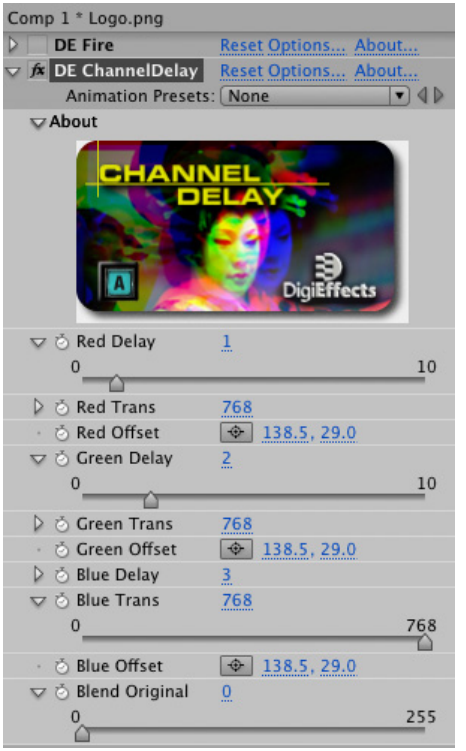
Zoom is the weight of keyframe to apply to the zooming (in-and-out) movement. Lower values mean less zooming, higher values mean more zooming.

TIP If you see layers below showing around the edges of your shaking layer, increase the zoom.

Rotate

Rotate is the weight of keyframe to apply to the rotational movement. Lower values mean less rotation, higher values mean more rotation.

Channel Delay



Channel Delay offsets the position and time-location of RGB channels of a clip.

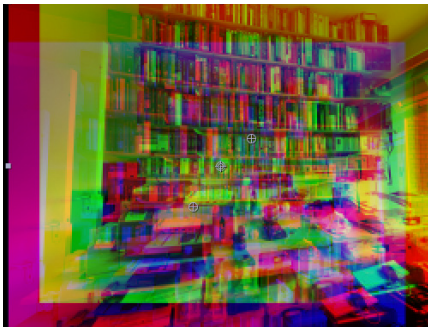
The Offset controls allow you to change the relative position of the channels.

Transparency allows you to change the weight of each channel allowing you to blend more or less of any given color channel.

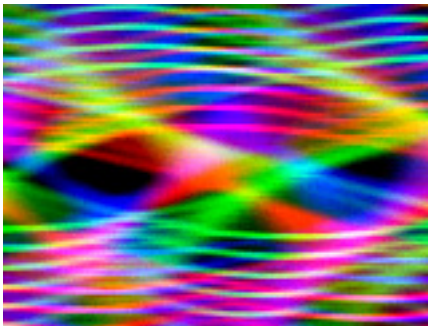
Delay allows you to change WHEN a color channel appears in the footage. In other words, you can give a time shift to each of the color channels individually.

Red Delay
Red Delay determines the frame being used by the Channel Delay. For example, if this is set to five, then the Channel Delay will use the frame from 5 frames back (i.e. if you are on frame 25 in the timeline and the red delay is set to 5, then Channel Delay will use frame 20.)

Red Trans
Red Trans controls the transparency of the red color channel of the frame that



Channel delay on a real image.



Artistic effects with Channel Delay.

Red Delay is introducing into the current frame.

Red Offset
Red Offset controls the amount that the channel will be offset from the original layer position.

TIP This control is fast enough even on slower systems that you can click down on the location selector, hold down the option key and drag your mouse across the layer to see the effect. This will also show you how the numbers in the plug-in relate to the location of the layer.

Green Delay
Green Delay determines the frame being used by the Channel Delay. For example, if this is set to five, then the Channel Delay will use the frame from 5 frames previous to the current frame as the current frame (i.e. if you are on frame 25 in the timeline and the green delay is set to 5, then Channel Delay will use frame 20).

Green Trans
Green Trans controls the transparency of the Green color channel of the layer to which the effect is applied. The higher the number, the more transparent the Green colors in the layer. When this number is at 255, there is no Green left in the layer.

Green Offset
Green Offset controls the amount that the channel will be offset from the original layer position.

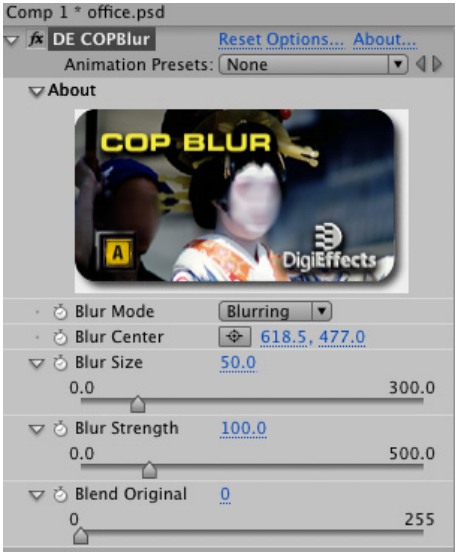
Blue Delay
Blue Delay determines the frame being used by the Channel Delay.

Blue Trans
Blue Trans controls the transparency of the Blue color channel of the layer to which the effect is applied. The higher the number, the more transparent the Blue colors in the layer. When this number is at 255, there is no Blue left in the layer.

Blue Offset
Blue Offset controls the amount that the channel will be offset from the original layer position.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

COP Blur



COP Blur is a simple regional blur designed for those occasions where someone really shouldn't be identified. There are two choices for obliterating the underlying region, either a blur or a pixelization.

When Grid is selected in Blur Mode, the blur strength is used to control how large the pixels will be in the obliteration grid.

Blur Mode

Blur
When selected, the effect will use a blur as the method of obscuring the underlying image.

Grid
When selected, the effect will use a pixelization as the method of obscuring the underlying image.

Blur Size
Blur Size controls the radius of the effected region.

Need someone to be anonymous?

Sample of Grid mode.

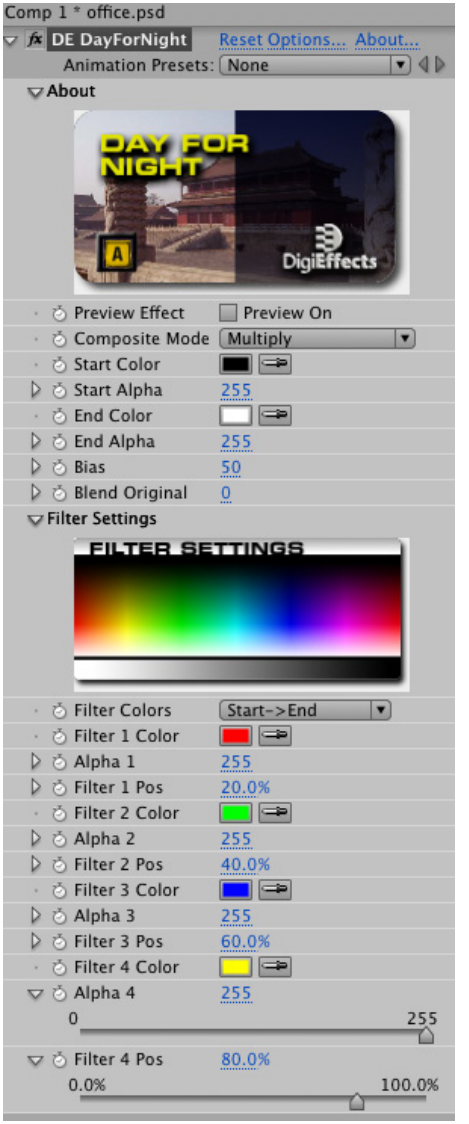
Blur Strength

Blur Strength controls the degree or intensity of the blur. When Grid is selected in Blur Mode, this controls the size of the pixels or grids that are obscuring the underlying image.

Blend Original

Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Day For Night



Day For Night emulates the standard film industry method of shooting night scenes. It uses a gradient tint over the image to make a daylight scene look moonlit.

Day for Night came to us after many many requests from users who had been using the CineLook day for night preset. We had an overwhelming bundle of requests to design a plug-in that had some control over the effect and was easy to use. Here it is. We think the presets included will handle a majority of the uses of Day for Night, but like all of our presets, we suggest that you use them as good starting points for your own experiments.

TIP This plug-in is very fast and can usually be used while the option key is held down for immediate screen feedback. While tweaking the parameters, you will definitely benefit from the immediate feedback.

Preview Effect
When preview on is checked, the affected layer is not shown. In its place is the gradient that is being used to create the effect. This can be very useful in seeing where the position of the colors in the gradient truly are without having to see the affected layer. Alpha transparency will show as a checkered (black and white) region.
TIP When trying to learn how the con-

Night-time scenes are easy to create.

Day for night is a specialized gradient tint.

trols effect an image, turn this on and hold down the option key. Seeing the effect without the layer AND with immediate feedback makes it much clearer what is taking place when the plug-in is creating the Day for Night look.

Composite Mode

Composite Mode determines how the gradient that is created with this effect will be blended into the footage to which it is applied. By default, it is set to multiply with the Start Color black and the End Color white. These colors and composite mode makes the black darken the footage and the white transparent, one way of making a day shot look like a night shot.

Add
Add combines the color values of the layer with the underlying colors. The resulting color is lighter than the original.

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Subtract
Subtract uses the effect layer to reduce the brightness of the original layer but does not roll over beyond zero, so the extreme colors do not occur.

Difference

Difference subtracts the channel values of the layer and the underlying colors and displays the absolute value of the result.

Blend Using Alpha
Blend using Alpha uses the alpha's weight to blend the effect with the original footage.

Multiply
Multiply multiplies the color values in the layers and divides the result by 255. the resulting color is never brighter than the original.

Lighter
Lighter compares the channel values of the underlying and layer colors and displays the lighter of the two.

Darker
Darker compares the channel values of the underlying and layer colors and displays the darker of the two.

Overlay
Overlay multiplies or screens the colors depending on the base color. Patterns or colors overlay the existing pixels while preserving the highlights and shadows of the base color.

Hard Light
Hard Light multiplies or screens the resulting color depending on the original layer color. If the underlying color is lighter than 50% gray, the layer lightens as if it were screened. If the underlying color is darker than 50% gray, the layer darkens as if it were multiplied.

Soft Light
Soft light darkens or lightens the resulting colors, depending on the layer color. If the underlying color is lighter than 50% gray, the layer lightens. If the underlying color is darker than 50% gray, the layer darkens.

Minimum
Minimum uses the mathematical minimum color values to replace the original image. This is a modified version of Lighter.

Maximum
Maximum uses the mathematical maximum color value to replace the original footage. This is a modified version of Darker.

Bitwise OR, Bitwise AND, Bitwise XOR
Each of these settings do similar but slightly different operations to the channels. Exactly what they do is hard to explain without using mathematical formulas, and even then, they would not easily translate into a few descriptive adjectives. We suggest that you just try them out from time to time. Generally, they will give very odd looks that reshuffle the colors through different color bands.

Start Color
Start Color is the first color of the gradient that is used to create the Day for Night Effect. This color will begin at the top of the layer.

Start Alpha
Start Alpha defines the transparency of the Start Color. This can be used to scale back or lessen the effect of the Start Color.

End Color
End Alpha defines the transparency of the End Color. This can be used to scale back or lessen the effect of the End Color. End Color is the last or bottom color of the gradient. This color will begin at the bottom of the layer.

End Alpha
Start Alpha defines the transparency of the Start Color. This can be used to scale back or lessen the effect of the End Color.

Bias
Bias defines the weight or distribution of the Start and End colors. The lower this number is, the more dominant the Start Color.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Filter Settings

Filter Colors
Filter Colors defines the number of additional colors that will be used to create the gradient color for the Day for Night effect. This pop-up allows for the addition of colors between the Start and End Colors up to a maximum of 4 additional colors (6 total including the start and end colors).

Filter 1 Color
This is the color for the Filter 1 parameter.

Alpha 1
Alpha 1 controls how transparent or opaque the color will be that is selected under Filter 1 Color. The higher this number, the more opaque the color.

Filter 1 Pos
Filter 1 Pos controls the position of color one in the gradient that is causing the Day for Night Effect. It is similar to Bias for the start and end colors.

Electrical Arcs

Electrical Arcs is designed to generate arcs of electricity similar to what you see with a “Jacobs Ladder.” While it was designed to generate Arcs, it is also quite good at generating lightning bolts. Look at the preset “Bolt” to see a quick example. You will find tips below for creating lightning.

TIP This effect is very fast when there is only a single arc. To test how the controls work, set the number of arcs to one, hold down the option key and slide the sliders up and down. This will give you very fast feedback and help you understand what the controls.

For more information on Jacob’s Ladder visit this web site:
http://www.spacesearch.com

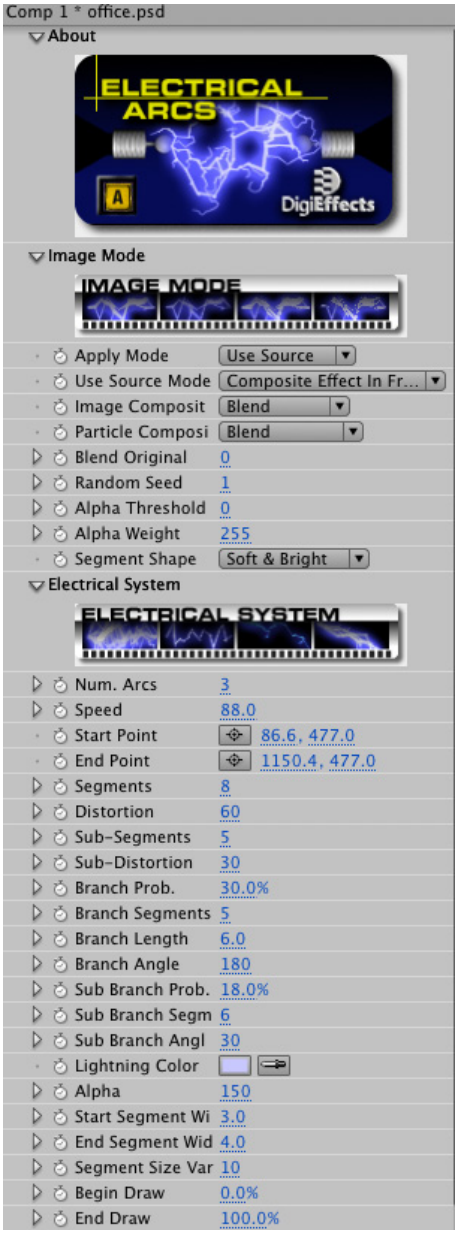
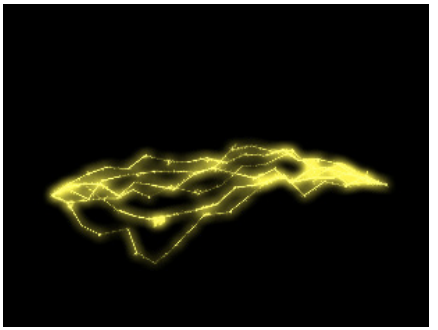
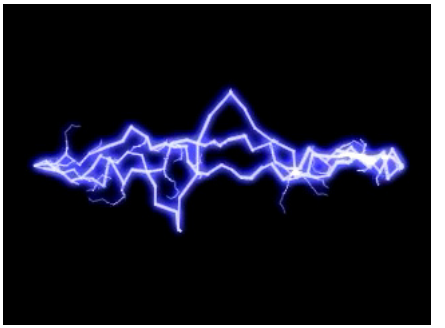


Image Mode
Apply Mode
Use Source Mode
Image Composite Mode
Particle Composite Mode
Blend Original
Alpha Threshold
Alpha Weight
Random Seed
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

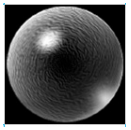


Electricity can be green.

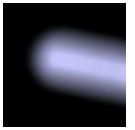


Glow is built-in.

Segment Shape



Soft & Bright

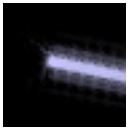


Harsh Falloff

Dot

Rounded

Star



Oval

Electrical System

Num Arcs
Num Arcs is the number of arcs that will be generated between the Start Point and End Point (below).

TIP When trying to create a lightning bolt, usually 2 or 3 is all that is necessary.

Speed
Speed controls how frequently or how often the many controls below will be recalculated. The higher this number, the more that the electrical arcs will twitch and move.

Lower numbers will give a slower movement to the arcs.

TIP If you are trying to create lightning bolts, set this control to zero. Lightning does not move, it occurs as a bolt, strikes and disappears.

Variation Seed
Same as Random Seed — see page 13 for details.

Start Point
Start Point is the left side point on the lightning at the default setting. It is where the beginning of the arcs are generated. All controls that specify start point vs. end point will use this point as the start point.

End Point
End Point is the right side point on the lightning at the default setting. All controls that specify end point will use this point as the end point.

Segments
Segments determines how many times the electrical arcs will break or change directions between the start point and the end point. There are major changes between start and end points. Subsegments (below) can further break these main segments.

Distortion
Distortion determines how far from the center line (an imaginary line drawn directly between the start point and end point) each of the segments can travel. The larger this number becomes, the larger the length of each segment and the further away from a straight line the arc will become.

Sub-Segments
Sub-Segments determines the number of times that the main segments will be subdivided. When this is set to one, each of the Segments will be straight. When this goes above one, the segments will look more broken.

NOTE Segments define the overall look of the arc, where it goes and how it moves. Sub-segments give the arcs their individual personality. Think of it this

way, Segments are like painting with a large paint brush and sub-segments are like painting with small, detail brushes. Sub-segments give your arcs detail.

Sub-Distortion
Sub-Distortion controls how far the sub-segments will be bent. The higher this number, the more crooked the lines between the segments.

NOTE Branches occur at the joints between segments or sub-segments only.

Branch Prob
Branch Prob controls the probability of a branch being generated at a sub-segment joint. This does not define how the branch will behave, only whether or not it will appear. Higher percentages will give greater branch likelihood.

Branch Segments
Each of the segments generated from the Branch Probability control can be segmented, or the direction of the branch can be changed. Branch Segments controls how many times the branches will be segmented or the direction of the branch is changed. Higher numbers will give the branches a more twisted appearance.

Branch Length
Branch Length determines the total length of the branch. This length will be subdivided by the number of segments, so the greater number of branch segments, the closer the branch will stay to the main arc. If you increase the branch length and decrease the number of segments, the branches will grow directly out of the sub-distortions and away from the arc. How far away from the arc is determined by branch angle (below).

Branch Angle
Branch Angle determines the direction of the branches as they come out of the joints of the sub-segments. Branch angle only determines the direction of the branch as it is leaving the arc. Sub Branch angle (below) will determine the direction of each of the divisions of the branch after the initial direction is determined.

Sub Branch Prob
Sub Branch Probability controls the likelihood of each of the branches dividing into additional branches.

Sub Branch Segments
Sub Branch Segments determines how many times the sub branches will be divided. The higher the number, the more twisted the sub branches will appear.

Sub Branch Angle
Sub branch angle determines the angle of each of the sub branch divides AFTER they have left the arc. The initial direction is determined by the Branch Angle.

Lightning Color
Lightning Color determines the color of the interior or arc (non-glowing portion) of the lighting.

NOTE The color of the arc is typically defined as a combination of the Lightning Color and the Glow. If the Glow Radius is set to zero, this will be the only control that effects the color of the lightning.

Alpha
Alpha determines the transparency or opacity of the Electrical Arc.

Start Segment Width
Start Segment Width determines the width of the start segment, by default the left side segment. If start segment width and end segment width are of different sizes, the arcs will taper between the wider and narrower sizes.

End Segment Width
End Segment Width determines the width of the end segment, by default the right side segment.

TIP These controls are very important if you want to create a lightning bolt. Use the Start Segment as the beginning of your bolt. Use Start Segment width to make it wider than the end segment. If you load up the preset “Bolt” you will see that the start segment is significantly wider than the end segment.

Segment Size Variation
Segment Size Variation allows you to control how uniform or non-uniform the

sizes are for each segment. The higher this number, the more random and less uniform the segments.

Begin Draw
Begin Draw controls where the beginning of the arc will be drawn in relation to the start point. This control will remove segments starting at the Start Point and moving towards the End Point.

End Draw
End Draw controls where the ending of the arc will be drawn in relation to the end point. This control will remove segments starting at the End Point and moving towards the Start Point.

TIP If you want your arc or bolt to look like it is reaching out from the beginning or the end and moving towards the opposite point, keyframe either the Begin Draw or End Draw controls.

Glow

Glow Radius
Glow Radius controls the distance from the arcs edge on both sides of the arc that the glow colors will travel away from the electrical arcs. The glow also covers over the interior of the arc, so when this is turned completely off, the electrical arcs look much thinner.

Glow Intensity
Glow Intensity controls the brightness level of the glow. Since the glow radius covers both the interior and exterior of the arc, when you increase the glow intensity it affects the interior of the arc more than the outside of the arc.

Glow Colors are defined by two colors, the color that is closest to the electrical arc and another layer of color that lies just outside of the arc.

Glow Inner Color
This color defines the glow color closest to the arc.

Glow Outer Color
This color defines the glow color that is outside the electrical arc and the Glow Inner Color.

Color Bias
Color Bias defines the balance of the Glow Inner Color and Glow Outer Color. Lower numbers will increase the value of the Glow Inner Color in the overall appearance of the glow. Larger numbers tip the balance towards the outer color.

TIP Electrical Arcs typically look best with a lighter and whiter color for the Glow Inner Color and a darker, more vibrant color for the Glow Outer Color.

Glow Mode

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Fairy Dust

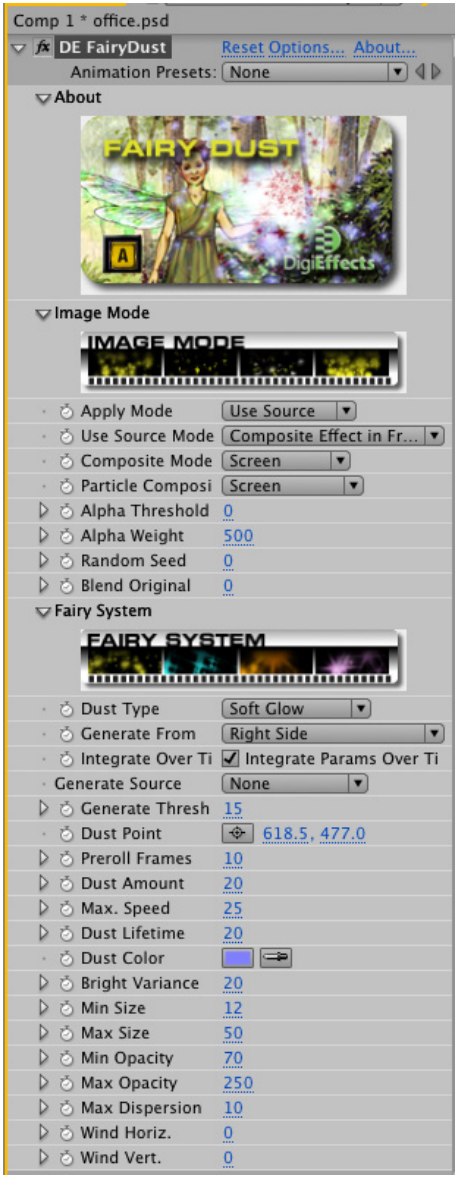
Fairy Dust is a fun plug-in that can be used to follow a magic wand or zip around the screen like a comet.

You can even generate particles from a logo to create scintilating animated images.

Image Mode

Apply Mode
Use Source Mode
Composite Mode
Particle Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Generate From
Integrate Over Time
Generate Source
Generate Threshold
Dust Point
Preroll Frames

Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

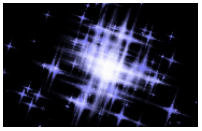


Fairy dust can follow a point, leaving a trail.

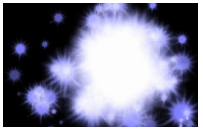
Fairy dust from the alpha channel of a logo.

Fairy System

Dust Type



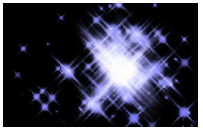
Soft Glow



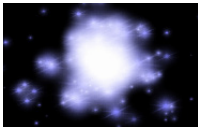
Hexagonal

Sparky

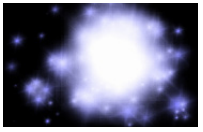
Quad Highlight



Quad



Solar



Random Hex

Dust Amount
Dust Amount determines the quantity of dust that is generated per frame.
NOTE This is not an average for each frame, this is an amount generated per frame.

Max Speed
As the particles move, Max Speed will control how fast the fastest of the particles will move. This is an average from zero to max speed, some move very slowly so that there is always a trail left behind. **NOTE** Not all particles will move at this speed, only the fastest ones.

Dust Lifetime
Dust Lifetime determines how long the particles will stay on the layer before they disappear.

NOTE The longer the particles last, the more that will be on the layer.

Dust Color
This determines the color of the dust on your layer when it is generated. This can be a great control to keyframe.

Bright Variance
Bright Variance controls the amount of flicker that the various particles will have over time.

NOTE This is a temporal effect and may be difficult to see when adjusted on a single frame.

Min Size
All of the dust particles will be between a minimum and maximum size. Min Size determines the smallest size of particle that will be generated.

Max Size
Max Size will determine the largest particle size generated.

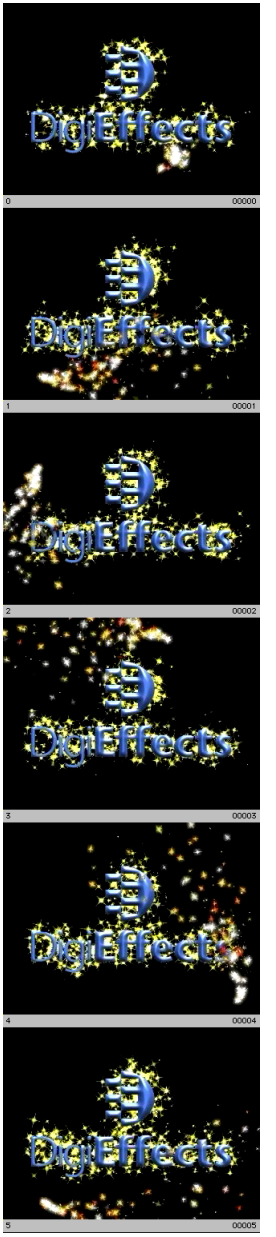
TIP For a more three dimensional look when tracking a wand or other object that you want to generate Fairy Dust, keyframe and increase these numbers as the generator gets closer and decrease the numbers as the generator gets further away.

Min Opacity
Each of the particles is to some degree transparent and to some degree opaque. Min Opacity controls the minimum amount of opacity for each particle.

Max Opacity
Max Opacity defines the maximum amount that a particle will be opaque. Note that with Min and Max Opacity these are the extremes. Most of the particles will be distributed between these levels of opacity.

Max Dispersion
Max Dispersion controls the size of the emitter point when Generate From is set to Dust Point. When Generate From is set to any other generate type, Max Dispersion increases the area in which the particles will be generated.

TIP by keyframing this setting you can have particles start in a small area and grow to a much larger area. This will work better than Generate Threshold since that requires certain values to be in the image before it will be a valid area to generate particles. Dispersion uniformly grows the area in which it will generate particles.



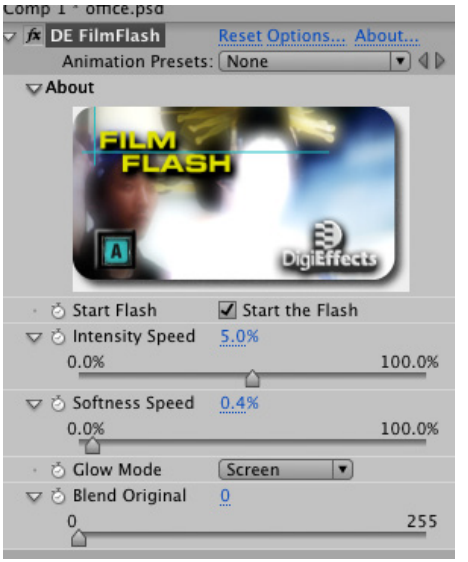
Wind Horiz
Wind Horizontal controls how much the dust can be pushed left or right by the force of "wind". This directional force will interact with the dusts tendency to go in different directions.

The wind will be an averaging force in the given direction, but individual dust particles will still move in all directions. Positive numbers will make the particles drift right, negative numbers will make the particles drift to the left.

Wind Vert
Wind Vertical controls a force that can make the dust particles drift up or down. As above, this is an average and will affect the whole, but the individual particles are able to drift in any direction.

TIP Use high negative numbers for Wind Vert and Generate From Bottom of Layer to give an appearance of a curtain of dust rising up from the ground.

Film Flash



Film Flash simulates the look of a film camera slowing down and allowing each frame be exposed to greater and greater amounts of light.

The Film Flash effect will eventually overwhelm the footage to which it is applied to by increasing the glow until it reaches solid white.

Start the Flash
To create a slash effect that begins later than the first frame, set an “Off” keyframe with Start the Flash at the beginning of the time line.

When it is time for the flash to begin, set another keyframe in the on position(option-click the word Start Flash in the plug-in to set a keyframe).

Intensity Speed
Intensity speed determines how quickly the film flash will become bright. The higher this is set, the sooner the flash will overwhelm the underlying footage.

Softness Speed
Softness Speed determines how soft the flash will appear. When this is set to a large value, it blurs the flash (but not the underlying footage) and it takes longer for the flash to blow out the underlying footage.

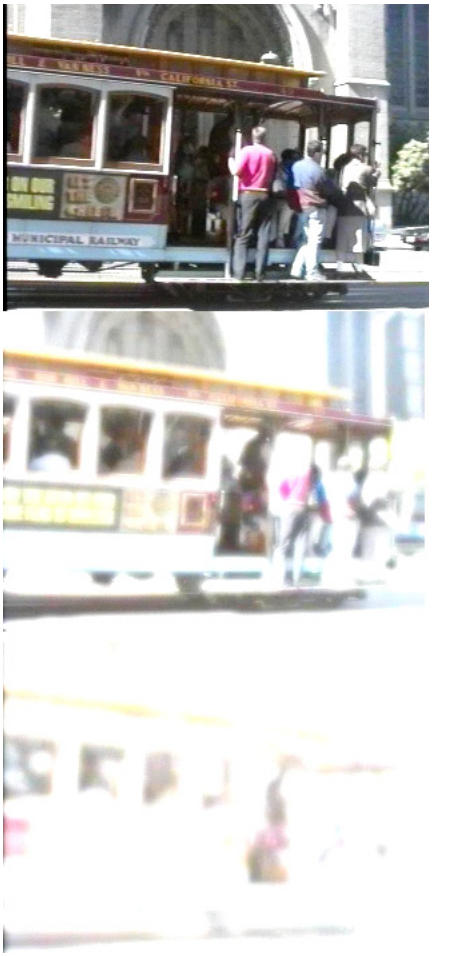
TIP Setting Intensity Speed to twice Softness Speed gives a smooth flash that develops quickly, depending on how high the numbers are set.

Glow Mode
Determines the compositing mode for mixing the Film Flash effect with the source image. Check out "Using the Plug-ins" section for more information on the modes and how they are used.

TIP While many channel modes are available here, usually only add and screen achieve the intended effect. Experiment with the other Modes to see some interesting effects.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

TIP If the parameters for softness speed and intensity speed are set too low, the image may never completely flash to white. If the flash never happens, increase the values of these parameters.



Fire

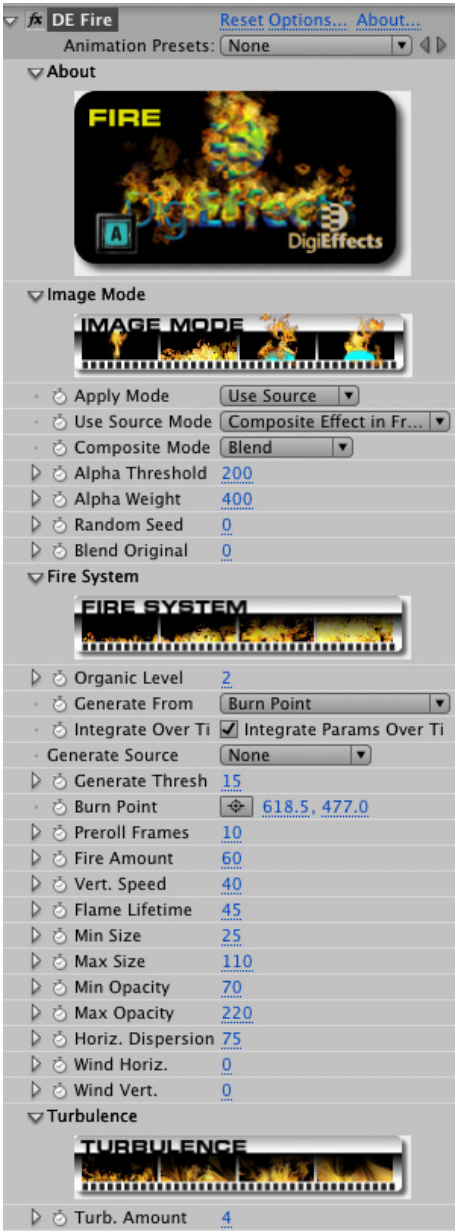
Fire has to be one of our most requested plug-ins of all time. This is probably why there are so many fire plug-ins available and even more tutorials on how to create fire with general purpose particle systems.

The fire style is a “raging inferno” type of fire with flames flicking upwards from the burning object. This can make a nice torch burning effect.

The Delirium Fire effect is a particle based algorithm in contrast to other fire effects with are procedural-noise based. Delirium’s Fire will have a much more organic and realistic appearance due to the particle system simulation.

“Organic Levels” is an important control — it adds additional layers of fire with all of the same control settings, but it creates slightly different values. Each additional Level will slow the render times, so use sparingly.

This will give you additional levels of fire with the same general look, but the various layers of fire will each have individual characteristics.



Fire from a logo.

Burn from the bottom.

TIP Add additional Organic Layers to increase realism, but balance that with the additional render times.

TIP Sometimes blending both an organic particle based fire like this one with a procedural fire plug-in (there are several available) can make an even more realistic fire effect.

Image Mode

Apply Mode
Use Source Mode
Composite Mode
Particle Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Generate From
Integrate Over Time
Generate Source
Generate Threshold
Dust Point
Preroll Frames
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Fire System

TIP Fire System and Turbulence together determine the character of the flames.

Use these controls together to determine the overall look of your fire.

Organic Level
Fire composites several slightly different layers of the fire effect to give a more natural and organic appearance to the fire. Organic Level also determines the number of repetitions of the effect that will be generated.

NOTE More Organic Layers will look more complex, but will also slow down render times. Values between 3 and 5 will look best for most uses.

TIP Using the "Generate from Layer Alpha > Threshold" is the best way to generate fire from text or a company logo that has an alpha channel.

Fire Amount
Fire Amount controls the total number of flames that are generated per organic layer per frame.

Vert Speed
Vert Speed controls the rate at which the flames rise once they have been emitted.

Flame Lifetime
Flame Lifetime controls how many frames the flames will last once they are emitted.

Min Size
Min Size determines the smallest size flame that will be emitted.

Max Size
Max Size determines the largest size flame that will be emitted.

NOTE Most flames will be of a size in between the Min and Max. Min and Max size only determine the outside boundaries of the potential size of the individual flames.

TIP Min size and Max size do not completely determine the size of the fire. Mostly they determine the style of the fire. Use fire amount to determine the size of the overall fire and size min and max to give the fire character.

Min Opacity
Min Opacity controls the minimal amount of how opaque the flames can be. When this number is set low, many of the flames will be transparent. When set high, you will not be able to see through the flames much at all.

Max Opacity
Max Opacity controls the maximum amount of how opaque the flames can be. When this is set low, you will be able to see through the fire to the layer to which Fire is applied.

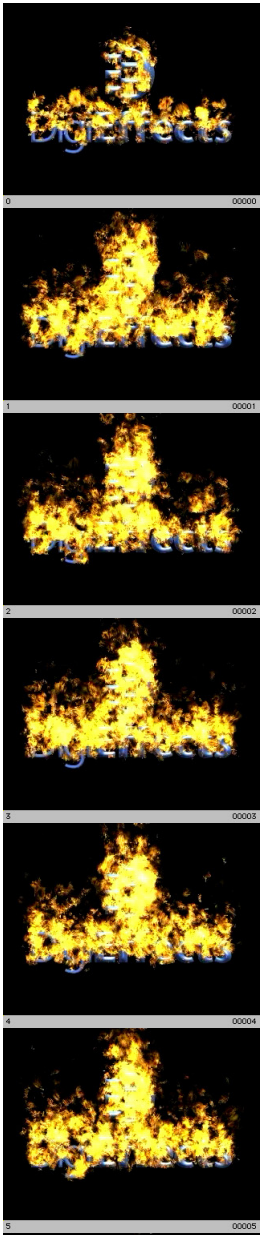
Horiz Dispersion
Horiz Dispersion controls how much the flames will be dispersed along the horizontal axis from their generation location.

Wind Horiz.
Wind Horizontal controls how much sideways force there is on the fire.

TIP Use this with keyframes to make the fire sway back and forth.

Wind Vert
Wind Vert gives you control over how fast the flames rise. This can be used in conjunction with Vert Speed to determine the overall flame speed.

TIP Use Vert Speed when you want the overall speed of the fire to stay constant but you need to keyframe vertically accelerated bursts of fire.



Turbulence
Turbulence is the wispy appearance that is seen in the flames. Turbulence stretches the flames to create realism and cohesion in the flames.

Turb Amount
Turb Amount determines how much of an effect turbulence will have on the fire.

TIP The higher the Turb Amount, the slower the render. For Example, if this is set at 12, it will take approximately 20% longer than if it was set at 5.

Turb V Speed
Turbulence moves faster then the flames, that is what stretches it and gives it a wispy appearance. Turb V Speed determines the speed of the displacement field.

Turb Size
Turb Size determines the detail that is generated with the turbulence. The higher the number, the greater the details visible from the turbulence in the fire.

NOTE We create the Fire plug-in to do one thing really well - create flames. But in exchange for simplicity, we left out the ability to change the flame color. To change the color of flames, use the built-in After Effects color correction tools (like HLS Balance), or use Thermograph.

Fireworks

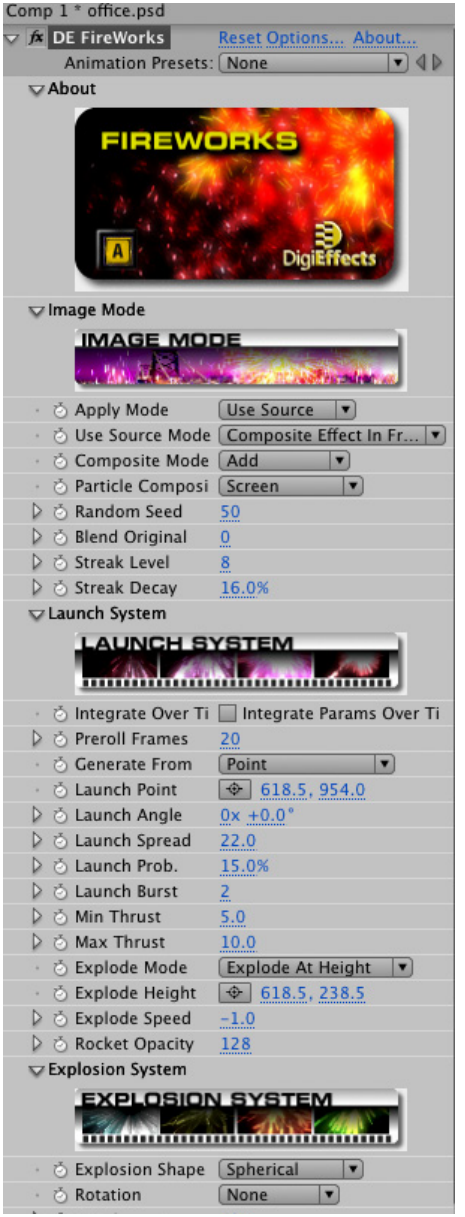
Fireworks simulates big fireworks displays that occur about every six months across the United States (and more often in other parts of the world.)

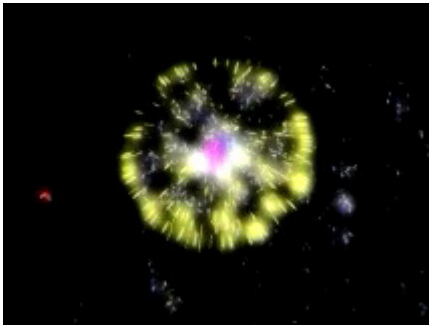
Fireworks is particle-system effect aimed at creating an motion sequences that are difficult to handle with a general purpose particle system. It is broken down into 3 stages: Launch System , Explosion System and Sparkler System.

The Launch System controls how the firework shell rockets will fly up: how quickly, how many, at what speed and at what point they will explode into the main firework. It handles everything up to the fireworks actual explosion.

The Explosion system and everything below it handle what happens after the firework explodes. The colors, speed and direction of the exploded parts, how long the explosion lasts and how fast it drops is all handled here and in the other control sections like Environment and Glow.

The Sparkle System adds small “sparkle” particles from the Explosion system particles. This creates a realistic sparkling effect.





Here is a spherical burst.

Geometricla bursts can look very interesting.

Image Mode

Apply Mode
Use Source Mode
Composite Mode
Particle Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Generate From
Integrate Over Time
Generate Source
Generate Threshold
Dust Point
Preroll Frames
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

TIP You may want to use several instances of the Fireworks plug-ins with different heights and different types of explosions.

Keyframing the various colors will help prevent all of the fireworks from looking the same, but make sure that “IntegrateParams Over Time” is checked. “Streak Level” and “Streak Decay” together determine the amount of trailing behind the individual parts of the firework explosions that occur. Level determines the longest streak length and Decay determines how fast it fades from the source.
Streak Level

Streak Level determines how far behind the firework particle a streak will travel.

Streak Decay
Streak Decay determines how quickly the streak will fade out.

Launch System

Integrate Over Time
Check this box if you plan on keyframing any of the controls. If you are not keyframing any of the parameters, leave this box unchecked and rendering time will significantly decrease.

Generate From

Bottom of Layer
When Bottom of Layer is selected in the Generate From pop-up, the fireworks will be sent up from any point on the bottom of the layer. The launch location will be determined randomly.

Point
When *Point* is selected in the "Generate From" pop-up the fireworks will be launched according to whatever point is selected in the "Launch Point" control (below).

TIP When this parameter is animated, the Integrate Parameters Over Time box needs to be checked.

Launch Point
Point must be selected in the Generate From control (above.) Launch Point determines the point from which the fireworks will be Launched.

Launch Angle
Launch Angle determines the direction that the fireworks will be launched. 0 degrees will launch the fireworks straight up. Negative numbers will launch it to the left and positive numbers to the right.

Launch Spread
Launch Spread determines how far from the launch angle the fireworks may shoot. When this is set low, the fireworks will go straight up from the launch point, when this is set high, the fireworks will shoot to the left and right of the launch point.

Launch Prob
Launch Probability determines how often fireworks will be launched. The higher this number, the greater the likelihood of fireworks being launched per frame.

If you want the fireworks to launch on a specific frame, keyframe the previous frame to zero and the frame at which you want the launch to occur at 100%. If you do not want a constant and heavy stream of fireworks, you will need to lower the launch probability.

Launch Burst
Launch Burst determines how many fireworks will be launched per launch event as determined by Launch Probability.

TIP Launch Probability and Launch Burst determine together the total number of fireworks.

Min Thrust
Min Thrust determines the speed of the slowest fireworks on their way up (pre-explosion).

Max Thrust
Max Thrust determines the speed of the fastest fireworks on their way up.

NOTE The speed of the fireworks will fall in between these two speeds. Some fireworks will go faster than others, but none of them will go faster or slower than these numbers.

Explode Mode

Explode at Height
Explode at Height determines the vertical location of the explosions in conjunction with the Explode Height selector (below). Whatever vertical height this is set to will determine at what height all rockets will explode.

Explode at Speed
When this is selected, te rockets will explode when they reach the speed that is selected in the Explode Speed slider (below).

Explode Height
Explode Height determines the altitude or how high up the screen the fireworks will explode when Explode at Height is selected in the Explode Mode pop-up.

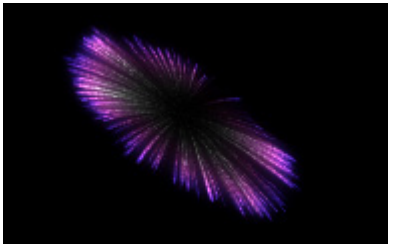
Explode Speed
When Explode at Speed is selected in the Explode Mode pop-up, Explode Speed will determine the rate at which rockets must be moving before they will explode into Fireworks.

NOTE If this is a negative number, the rocket must be moving down to explode. The rocket will hit the peak of how high it can go according to thrust and speed and then start to fall. When it falls at a speed equal to the number in the slider, it will explode. Note that this is only if it is a negative number.

Rocket Opacity
Rocket Opacity controls how transparent or opaque the rockets are on their way up to deliver the fireworks explosion. The higher this number rises, the more that the rocket will be visible.

Explosion System

Explosion Shape
Explosion shape defines the general direction of the particles.



Explosive

Geometrical

Explosive, Oval and Spherical look like naturally occurring firework effects. The Geometrical shape can create some unusual looking fireworks.

Rotation Variation
Rotation Variation can allow the particles to rotate around the explosion point after they have been pushed from the explosion. This could be described as a pin-wheel effect.

None
When selected no rotation or pinwheel effect occurs.

Constant
When selected there is a randombut uniform amount of rotation applied to the particles. The effect looks like a pin-wheel.

Varying
When selected, there is a non-unform amount of rotation applied to the particles within the explosion. The particles seem to fly every which way.

Squiggle
When this is checked on, the pos explosion particles will waver back and forth as they explode.

Min Generate
Min Generate determines the minimum amount of particles that will be a part of the Firework (i.e., how many particles will launch out of the explosion).

Max Generate
Max Generate determines the maximum amount of particles that will be a part of the Firework explosion.

Min Velocity
Min Velocity controls the slowest rate at which the particles will move away from the fireworks explosion point.

Max Velocity
Max Velocity controls the fastest rate at which the particles will move away from the fireworks explosion point.

Min Opacity
Min opacity determines the minimal amount of transparency or opacity in the firework explosion.

Max Opacity
Max Opacity determines the maximum amount of transparency or opacity in the firework explosion.

Birth Color
Birth Color determines the color of the firework when it initially explodes.

Mid Color
Mid Color determines the color of the firework in the middle of its life.

Death Color
Death Color determines the final color of the firework before it completely fades away.

NOTE The colors will fade from one color to the next.

Min Lifetime
Min Lifetime determines the shortest amount of time that any individual particles that make up a firework will last.

Max Lifetime
MaxLifetime determines the longes amount of time(frames) that any individual particles that make up a firework will last.

Min Mass
Min Mass determines the least amount of mass that can be assigned to each of the fireworks particles. Mass is the factor that defines how much gravity, air-resistance and wind affect the particle.

Max Mass
Max Mass determines the greatest amount of mass that can be assigned to each of the fireworks particles. Mass is the factor that defines how much gravity, air-resistance and wind affect the particle.

Sparkler System
The Sparkler System will add a sparkly effect to the end of the explosion particles as they fall.

NOTE This can cause rendering times to become slower.

Generate
Generate determines how many sparkle particles will be generated per frame.

Velocity
Velocity controls maximum speed of the sparkler particles.

Opacity
Opacity determines the transparency of the sparkle particles.

Color
Color determines the color of the Sparkler System particles.

Lifetime
Lifetime determines maximum lifetime for each of the Sparkler particles.

Mass
Mass is the factor that defines how much gravity, air-resistance and wind affect the particle.

Environment

Gravity
Gravity controls how quickly the firework particles will fall once it has exploded. This will have the same effect on each of the particles depending on its mass. Air resistance can make different particles slow down at different rates, depending on the mass of the particles.

Wind Horiz
Wind Horizontal controls the ability to make the fireworks drift to the right or left. This will interact with the firework to give it a "pushed" look. If you set this very high the firework will be blown in this direction.

Wind Vert
Wind Vertical increases or decreases the vertical speed of the fireworks. This can be used to simulate wind blowing from the ground.

Air Resist
Air Resistance decelerates the particles as they are traveling. This is equivalent to setting brakes on the particles.

Glow

Glow Radius
Glow Radius determines how far glow that is set in Glow Intensity will spread. If this is set high, the glow will extend for a large distance around the particles. If it is set low, the glow will be concentrated closely around the particle.

TIP When Glow Radius is set low, it makes the particles glow more brightly. To turn that down, work with glow intensity.

Glow Intensity
Glow Intensity determines how brightly the particles will glow.

Glow Own Colors
When this box is checked, the glow will be the same as the color of the particles. When this in not checked, the Glow Inner Color and Glow Outer Color determine the color of the glow.

Glow Inner Color
When Glow Own Colors is unchecked, this determines the interior color of the glow.

Glow Outer Color
When Glow Own Colors is unchecked, this determines the color of the exterior glow.

Color Bias
Color Bias allows for control over which color between Glow Inner Color and Glow Outer Color will be dominant.

Glow Mode

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Flicker and Strobe

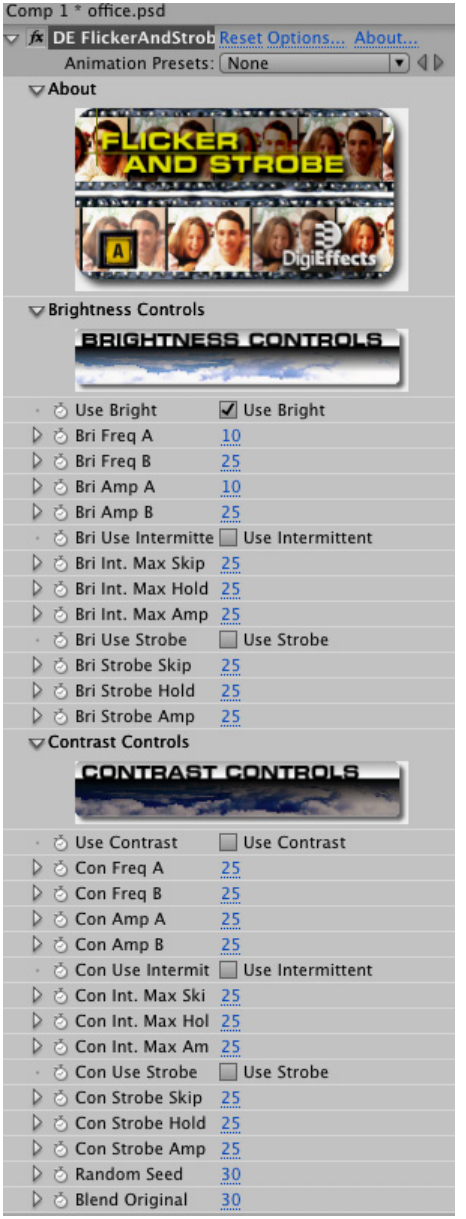
The “Flicker and Strobe” plug-in causes an image to vary it’s luminance (brightness) and contrast levels over time.

This plug-in automatically sets internal keyframes and animates the effect via those key-frames. Most of the parameters are used to define the behavior of the keyframes (min/max number of frames or intensity). This makes in mostly unnecessary to set keyframes for this effect. Simply adjust the parameters, and allow the plug-in to animate through them.

There are three methods to control the brightness and contrast over time. These three methods can be used simultaneously.

The first method uses amplitudes of two sine-waves to control the amount of brightness and contrast to use. The two waves amplitudes are added together to create a master wave, which can both brighten and darken the image.

The second method is to add



“Intermittent” brightness and contrast that will make the scene appear to flicker, as if lit by a waving candlelight. Use this plug-in to simulate arc welding, fireworks, or explosions.

The third method is to add “strobe” effects that will create the stroboscopic effect that repeats over time. This is the common “disco” effect that you’ve probably seen.

For Intermittent and Strobe, you can “hold” the brightness level for a number of frames, and you can also set the number of frames to “skip” after a “hold”. These parameters are denoted in frames, and the value of the parameter (skip or hold) is the maximum number of frames to be held/skipped. The maximum amount of brightness to apply is denoted by the “Max Amp” parameter.

For Intermittent, when the effect is in the “hold” state, a random amount of brightness or contrast is applied to the scene (which causes it to flicker). For Strobe, the effect applies the “Strobe Amp” amount of brightness or contrast to the scene.

Brightness Controls

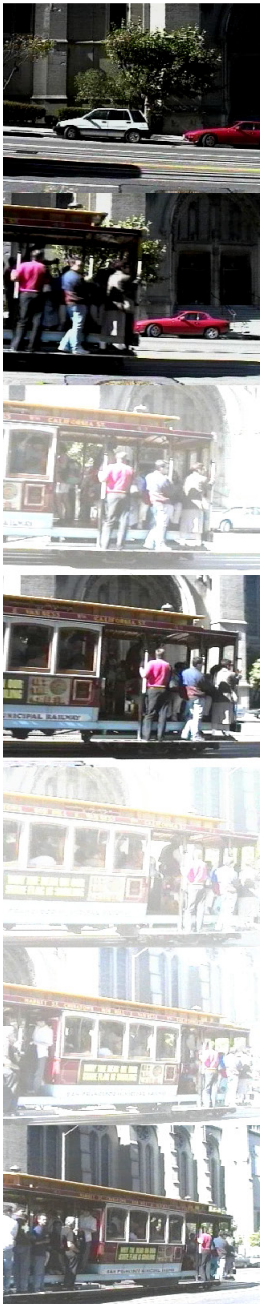
Use Bright
This will turn on/off the processing of brightness in the effect. Checked means modify the brightness of the image using the Brightness parameters.

Bri Freq A
Frequency of the first wave “A”. The frequency defines how fast the wave changes over time. Higher numbers mean faster flickering.

Bri Freq B

Frequency of the second wave “B”. Wave A and B are added together to create the
frequency of the wave. By doing this, the effect remain organic and semi-periodic.

Bri Amp A
Amplitude (size) of the first wave “A”. This controls how much brightness to add or remove. Higher numbers mean the scene will be more bright and more dark.



Bri Amp B
Amplitude of the second wave “B”. Higher numbers mean the scene will be more bright and more dark.

Bri Use Intermittent
This controls whether the “intermittent” parameters are used.

Bri Int Max Skip
This controls the maximum number of frames that will be skipped (no brightness effect applied). The larger the value the longer the time between flickers.

Bri Int Max Hold
This controls the maximum number of frames that the brightness will be applied. The larger the value, the longer the flickeriness will be applied.

Bri Int Max Amp
This is the maximum amount of brightness to apply. Higher numbers mean brighter scenes.

Bri Use Strobe
This controls whether the “strobe” parameters are used.

Bri Strobe Skip
This controls the maximum number of frames that will be skipped (no effect applied). The larger the value the longer the time between strobes.

Bri Strobe Hold
This controls the maximum number of frames that the strobe will be applied. The larger the value, the longer the strobe will be applied.

Bri Strobe Amp
This is the amount of brightness to apply during a “Strobe” period. Higher numbers mean brighter scenes.

Contrast Control

Use Contrast
This will turn on/off the processing of contrast in the effect. If checked means modify the brightness of the image is set using the brightness set of parameters.

Con Freq A
Frequency of the first wave “A”. The frequency defines how fast the wave changes over time. Higher numbers mean faster contrast flickering.

Con Freq B
Frequency of the second wave “B”. Wave A and B are added together to create the frequency of the wave. By doing this, the effect remains organic and semi-periodic.

Con Amp A
Amplitude (size) of the first wave “A”. This controls how much contrast to add or remove. Higher numbers mean the scene will be more and less contrasty.

Con Amp B
Amplitude of the second wave “B”. Higher numbers mean the scene will be more and less contrasty.

Con Use Intermittent
This controls whether the “intermittent” parameters are used.

Con Int Max Skip
This controls the maximum number of frames that the contrast will be applied. The larger the value, the longer the contrast flickeriness will be applied.

Con Int Max Hold
This is the maximum amount of contrast to apply. Higher numbers mean contrast scenes.

Con Int Max Amp
This controls whether the “strobe” parameters are used.

Con Use Strobe
This controls the maximum number of frames that will be skipped (no contrast effect applied). The larger the value the longer the time between strobes.

Con Strob Skip
This controls the maximum number of frames that the contrast will be applied. The larger the value, the longer the strobe will be applied.

Con Strobe Hold
This the amount of contrast to apply during a “Contrast” period. Higher numbers mean more contrasty scenes.

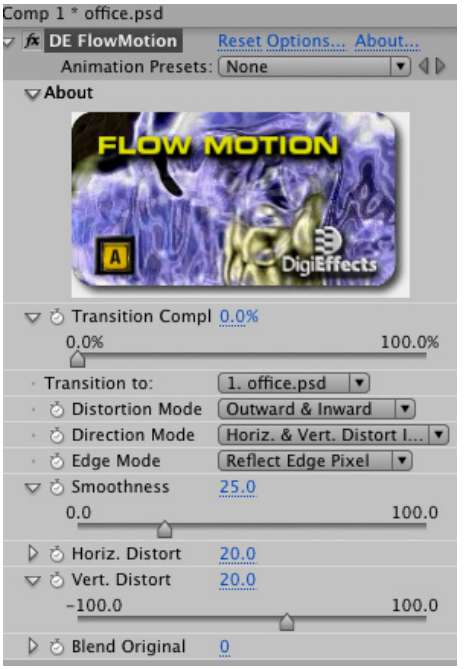
Con Strobe Amp
Amount of the original scene to blend in.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Flow Motion

Flow Motion creates an organic transition effect that works well with any footage.

Flow Motion is an effect that uses the two source layers as displacement maps between. The effect blends between each other as it fades between the source layers. A distortion is applied to the layers as the transition animates.



Transition To
The Transition To pop-up determines the layer to which you want the flow motion transition to end. In other words, the second half of the transition.

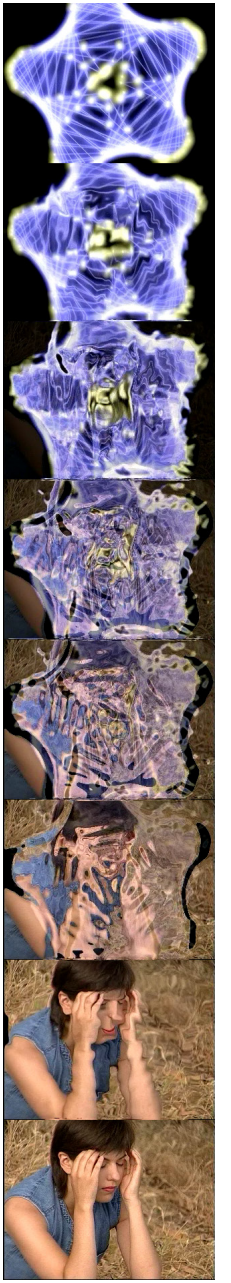
Transition Complete
Transition Complete determines how both when and how far the transition is executed.

TIP To start with no effect and then go into the transition later in the layer, keyframe this setting to zero at the beginning of the layer. Keyframe it at zero again at the point where you want the transition to start. Keyframe it to 100 where you want the transition to end.

Distortion Mode

Outward and Inward
Outward and Inward creates the direction of the flow distortion based on the pixel values in the footage that is being distorted. The source footage is displaced by the target footage in the first half of the distortion from zero to the maximum amount of distortion and then it switches and the target footage is displaced by the source image down to zero. Darker colors will move relatively little and lighter colors will move further.

Horiz and Vert
Horizontal and Vertical distorts with the same sort of distortion as Outward and Inward, but it does this distortion transition along a 45 degree angle.



Direction Mode

The Direction Mode pop-up is only applicable if the Distortion Mode is set to Horizontal and Vertical.

Horiz & Vert Distort Independent
Horiz & Vert Independent allows for control over the Horizontal and Vertical distortion amounts individually with the controls below.

Horiz & Vert Distort Linked
Horiz & Vert Linked will link the Vertical Distortion to the Horizontal Distortion slider.

Edge Mode
Edge mode determines how the pixels will be filled along the edges of the image when the distortion moves the footage such that the footage below or background color can be viewed. By using one of these methods, the footage below will not show through.

Repeat Edge Pixels
Repeat Edge Pixels will repeat the pixel closest to the uncovered area. This will give a stretched look from the edge of the distorted footage to the edge of the comp.

Wrap Around
Wrap Around will use pixels from the opposite side of the footage that have been distorted and use it to replace the empty areas.

Reflect Edge Pixels
Reflect Edge Pixels will use a reflection of the closest pixels to the edge of the areas that are uncovered due to the Wave Displace Effect. This is the most commonly used setting.

Smoothness
Smoothness blurs the footage that is used as a displacement map.

NOTE The higher this is set, the slower the transition.

Horiz Distort
Horiz Distort determines the amount of horizontal distortion that occurs in the transition if Horiz & Vert is selected in the Distortion Mode pop-up (above). If Horiz & Vert is selected in the Distortion Mode pop-up and Horiz & Vert Distortion Linked is selected in the Direction Mode pop-up, then this controls the distortion of both horizontal and vertical distortion (Vert Distort disabled). If Outward and Inward is selected, this controls the total distortion (Vert Distort disabled).

Vert Distort
Vert Distort determines the amount of vertical distortion that occurs in the transition if Horiz & Vert is selected in the Distortion Mode pop-up AND if Horiz & Vert Distortion Independent is selected in the Direction Mode pop-up

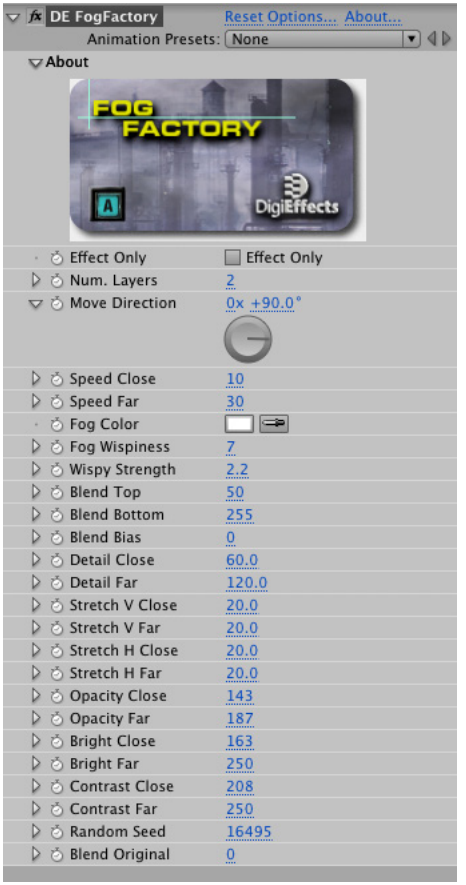
Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Fog Factory

Fog Factory creates a flowing fog effect that offers depth of field simulation and automatically moves without key-framing.

Fog Factory automates all of the motion of the fog effect. This is done by selecting the number of banks of fog that will be generated with Num Layers and then selecting the direction of the fog.

All of the controls that have a close and far control will scale the results between the closest (or first) and the furthest (or last) layer. Large differences in these values will give a large depth-of-field effect to the motion.



Effect Only
When checked, only the Fog Factory effect will be seen, the original source footage will be removed.

Num Layers
Num Layers determines the number of fog layers that are placed onto the footage.

Move Direction
Move Direction determines the direction that the fog will pass by.

Notice the wisps.

Flowing banks can be colored.

NOTE While most of the values generated with the min and max controls in Delirium are random(i.e., the value will be some random number between the min and max values) for Fog Factory this is not the case.

"Close" and "Far" will be the closest and furthest layer of fog. If there are more than 2 layers of fog, those layer values will be determined with a linear interpolation between the close and far values.

For example, assume that you have 3 layers and that speed close is set to 10 and speed far is set to 30. Layer one will move at the speed close of 10, layer three will move at the speed far of 30 and layer two (the middle layer) will move at a speed of 20. All of the control values will be distributed between the close and far layers in this manner in FogFactory.

Speed Close
Speed Close determines the speed of the closest away layer of fog.

Speed Far
Speed Far determines the speed of the fog that is furthest.

NOTE Speed is handled in this way to create the illusion of depth. When a bank of fog is viewed, perspective will make the fog that is closest appear to be moving faster than fog that is furthest away.

Fog Color
Fog Color determines the color of the fog.

Fog Wispiness
Wispiness provides curls and whirlpool motion into the banks of fog. Fog Wispiness determines the quantity of wispiness.

Wispiness Strength
Wispiness Strength determines how extreme the wisps will affect the fog.

Blend Top
Blend Top determines the opacity of the fog bank in the upper half of the layer. The lower this number, the less fog there will be along the top of the layer.

Blend Bottom
Blend Bottom determines the opacity of the fog bank in the lower half of the layer. The lower this number, the less fog there will be along the top of the Bottom.

Blend Bias
Blend Bias allows for further weighting of the top and bottom opacities. This is the only way to completely remove fog from the top or bottom halves of the footage.

NOTE If Blend Top and Blend Bottom are both set to 255, this control will not have any effect.

Detail Close
Detail Close determines the level of detail of the closest fog bank. The smaller this number, the closer the fogbank will appear. **TIP** Think of detail as zoom.

Detail Far
Detail Far determines the detail level of the furthest fog bank. The higher this number, the further away the fogbank will appear.

TIP If you want the fog to appear to cover a great distance, increase the differ-

ence between Detail Close and Detail Far. You may also need to increase the number of layers to complete in-between areas.

Stretch H Close
Stretch H Close stretches, or makes the closest fogbank longer along the horizontal axis.

Stretch H Far
Stretch H Far stretches or makes the furthest fog bank longer along the horizontal Axis.

TIP For a good graveyard type fog, stretch horizontally, and do so more with the close than with the far banks.

Stretch V Close
Stretch V Close stretches the closest fog layer along the vertical axis, making the fog look tall and thin.

Stretch V Far
Stretch V Far stretches the farthest fog layer along the vertical axis.

Opacity Close
Opacity Close determines the transparency or opacity of the closest fog layer.

Opacity Far
Opacity Far determines the transparency or opacity of the furthest fog layer.

Bright Close
Bright Close determines the brightness value of the closest layer of fog.

Bright Far
Bright Far determines the brightness value of the farthest layer of fog.

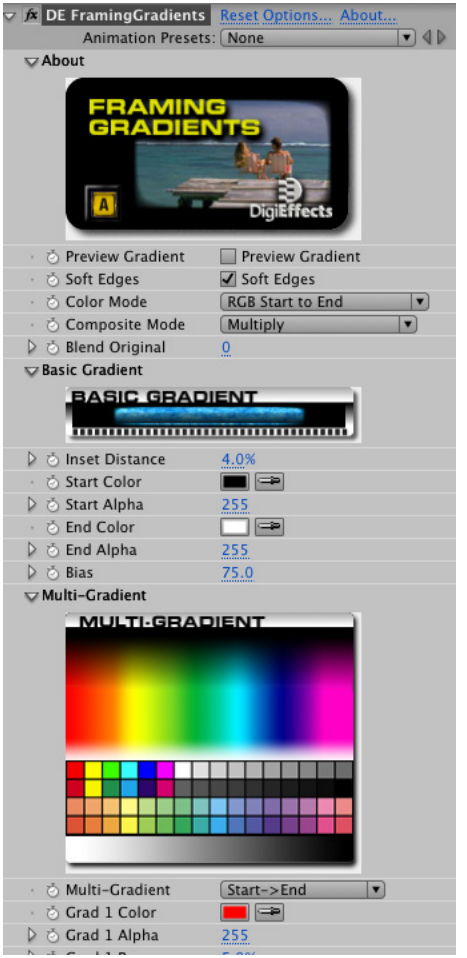
Contrast Close
Contrast Close determines the contrast value of the closest layer of fog.

Contrast Far
Contrast Far determines the contrast value of the farthest layer of fog.

Random Seed
Random Seed is the seed value (think of it as a start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly change values and the animation will not be smooth.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Framing Gradients



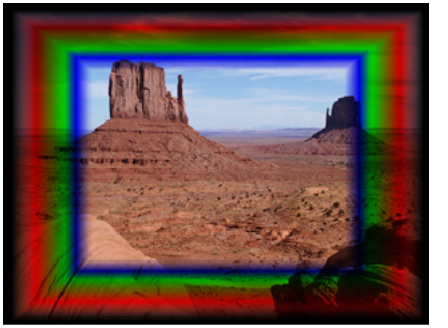
Framing Gradients simulates the appearance of adding a dark border around footage. This is often done in a telecine transfer. By using a subtle and gradual gradient around the outside of footage, the eye is drawn into the center of the footage and attention is focused on the subject matter.

Often you will want to keep the effect subtle so that it does not draw attention from the subject itself. Load the preset *Simple Frame* to see the use of a mid-gray start color and a high number for the start alpha. This is the style of application that we had in mind for the Framing Gradients effect, but with the insertion of color and various Composite Modes, many other looks can be created.

Preview Gradients
When this box is checked, the Comp window will show the gradient that is being used to create the effect. This gives you the opportunity to see what the components of the effect are without having to see it in the context of your footage.

Soft Edges

Soft Edges.



Gradient Color borders.

When this is on the four corners will be soft edged. When this is off, hard transition lines will be visible in each of the corners.

Color Mode
Defines how the colors are interpolated. RGB Modes interpolate along a straight line using the Red, Green and Blue channels. HSB modes interpolate through the colors as if they were a rainbow.

Composite Mode
Composite Modes are described in the "Using the Plug-ins" section at starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

TIP Multiply and Darker are usually the best options for a basic darkened edge frame.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Basic Gradient

Inset Distance
Inset Distance determines how far in from the edges to end the gradient.

Start Color
Start Color determines the first color, or the color closest to the outer edge of your gradient.

Start Alpha
Start Alpha determines the transparency or opacity of the start color in the gradient. This is used to give a softer, more transparent appearance to the framing gradient.

TIP If you set the inset distance to 3%, Start Color to black and Start Alpha to 255, you will see a black ring around the entire layer. Lower the inset distance and lower the start alpha to see a much softer edge.

End Color
End Color is the interior color of the gradient. In most cases you will want this to be white. If it is any other color, it will tint the entire interior (the area where the end color affects in the gradient) of your layer.

End Alpha
End Alpha determines the transparency of the end color of the gradient.

Bias
Bias controls the balance of color or the quantity of color between the start and end colors in the gradient. When this is shifted to the right, the end color will be more dominant in the gradient, when it is shifted to the left, the start color will be more dominant.

TIP A great basic framing gradient look can easily be created with just the 6 controls above.

Multi-Gradient

Multi-Gradient
This pop-up determines how many colors will be in the gradient. The colors will always fall in between the start and end colors. For Example, S ->1 ->E, will provide for a 3 color gradient starting with the **Start Color,** transitioning to the **Grad 1 Color** and ending with the **End Color.**

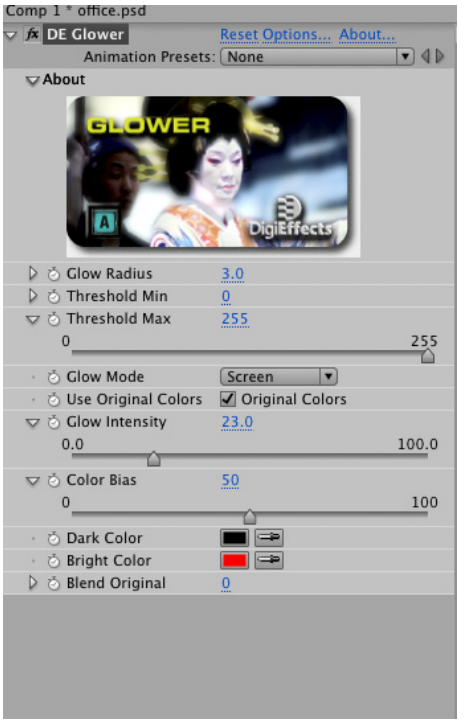
Grad 1 Color
When a Multi-Gradient is selected in the Multi-Gradient pop-up, this will determine the color of the “Grad 1” gradient.

Grad 1 Alpha
Grad 1 Alpha determines the transparency of the Grad 1 color.

Grad 1 Position
Grad 1 Position determines the position of the Grad 1 color on the gradient relative to the Start Color and End Color. A good way to see the results of this is to set this to red and slide the control left and right. You should be able to do this with the option key held down and receive near real-time feedback.

Notice that as you approach 100% that the interior of the gradient gives a very hard red line. This is because it is squeezing most of the End Color out. As you get to 100%, the entire interior of the layer turns red. This is because you have completely removed the End Color.

Glower



Glower provides a glow effect that has some interesting built in channel operations, a minimum and maximum threshold to help you more closely specify the glow region and of course, presets for the plug-in so that it is easy to replicate a specific set of parameters at any time.

Glow Radius
Glow Radius determines how many pixels away from the source pixel (which is every pixel that falls within threshold Min and Threshold Max) that the glow will extend.

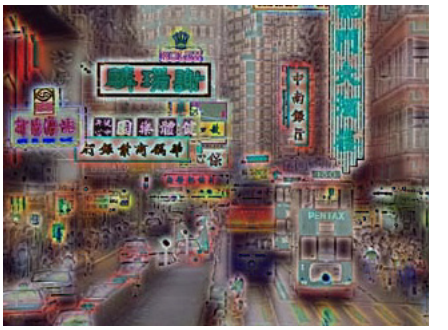
Threshold determines which pixels will glow based on luminance and the min and max controls below.

Threshold Min
Threshold Min is the minimal luminance threshold from which the glow will be generated. Zero is equal to black.

Threshold Max
Threshold Max is the maximum luminance threshold from which the glow will be generated. 255 is equal to white.

TIP If you want the dark areas to glow, set the min to zero and the max to somewhere around 75 (depending on the image). This can give a slightly cartoonish look to the footage and will often bring detail out of the darker

Glower creates a nice glowing effect.



Artistic effects with Glower.

areas.

If you want to use this effect to increase and soften highlights, set the controls to only affect the light colors. Set the min to somewhere around 200 and the max to 255 and only the lighter shades in the footage will glow.

Glow Mode

Use Original Colors
When this box is checked, the glow colors will be determined by the colors in the footage. When this is not checked, the glow will be based on the Dark Color and Bright color controls.

Glow Intensity
Glow Intensity determines how brightly the effect will glow on the pixels that the threshold will let the effect occur on.

NOTE Color Bias, Dark Color and Bright Color controls only modify the effect if the Use Original Color is not checked.

Color Bias
Color Bias determines the dominance between Dark Color and Bright Color.

Dark Color
This is the color of the darkest part of the glow when “Use Original Colors” is NOT checked.

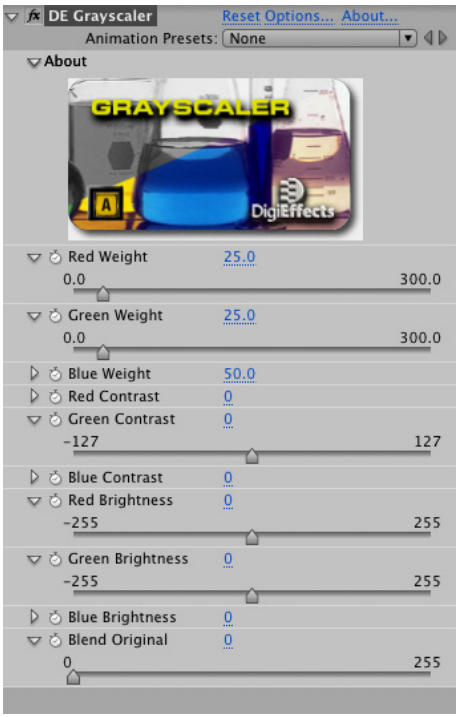
Bright Color
This is the color of the brightest part of the glow when “Use Original Colors” is NOT checked.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

TIP Glower can benefit greatly from Blend Original. Since the Glower Effect can give a blurred effect to the

footage, blend original is an excellent way to bring back some of the sharpness and detail back into the footage.

GrayScaler



GrayScaler converts color images into grayscale images with a customizable luminance control. You can get some amazing looks by blending different amounts of the Red, Green and Blue color channels together.

Grayscaler gives control over the process of going from Color to Grayscale. The key here is that it allows for adding varying amounts of each of the red, green and blue
color channels. Plus, for each of these channels brightness and contrast may be worked with independently.

TIP When first looking at footage that you are going to change into grayscale, it can be helpful to look at each of the color channels independently and without any changes made to the contrast or brightness of the channels.

To do this, load each of the following presets sequentially so that you can see the channels: Red Neutral, Green Neutral and Blue Neutral.

Grayscaler allows for different grayscale images based on the Red, Green and Blue color channels.

Weight is the amount of color that is contributed from each channel. The sum total of all three channels should equal 100 as this is the standard amount of channel contribution in a normal image. (i.e., it would be the same amount of luminance as a standard "Convert to Gray" would be in an application like Adobe Photoshop.) If the sum total is greater than 100, it will brighten or "blow out" the footage.

Red Weight
Red Weight determines the contribution of the red channel to the final grayscale image.

Green Weight
Green Weight determines the contribution of the green channel to the final grayscale image.

Blue Weight
Blue Weight determines the contribution of the blue channel to the final grayscale image.

Red Contrast
Red Contrast controls the amount of contrast in the red channel. This allows for increasing or decreasing the contrast levels in the channel before it is used in the blending of the red, green and blue channel to create the grayscale footage.

Green Contrast
Green Contrast controls the amount of contrast in the green channel. This allows for increasing or decreasing the contrast levels in the channel before it is used in the blending of the red. green and blue channel to create the grayscale footage.

Blue Contrast
Blue Contrast controls the amount of contrast in the blue channel. This allows for increasing or decreasing the contrast levels in the channel before it is used in the blending of the red. green and blue channel to create the grayscale footage.

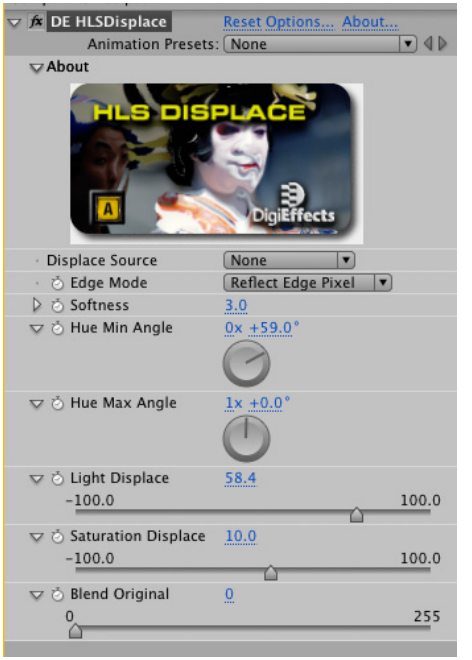
Red Brightness
Red Brightness controls the amount of brightness in the red channel. This allows for increasing or decreasing the brightness levels in the channel before it is used in the blending of the red, green and blue channel to create the grayscale footage.

Green Brightness
Green Brightness controls the amount of brightness in the green channel. This allows for increasing or decreasing the brightness levels in the channel before it is used in the blending of the red, green and blue channel to create the grayscale footage.

Blue Brightness
Blue Brightness controls the amount of brightness in the blue channel. This allows for increasing or decreasing the brightness levels in the channel before it is used in the blending of the red, green and blue channel to create the grayscale footage.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

HLS Displace



HLS Displace uses Hue, Lightness and Saturation create a displacement map that will warp to the source image.

The hue of the Displace Source determines the direction of the displacement. The Hue starts and ends with red, and travels clockwise around the hue wheel (red -> green -> blue -> red).

The strength of the warp depends on the “Light Displace” and “Saturation Displace” parameters. These values define how much warp is applied. These parameters are interesting to animate.

When using the HLS Displace effect and the Displace Source is set to the image itself, the footage will tend to get a very fractured and melty appearance. Try working this way to get a feel for how the effect will generate a look.

You can also use other sources like simple gradients to have more control over the effect.

TIP You may want to use the MultiGradients plug-in on a solid layer as a source for this effect and use Turbulent Noise or a particle system as a displacement map.

Displace Source

Create water effects in conjunction with Turbulent Noise.

You can also do "heat wave" effects.

Displace Source allows for a choice as to which layer will be used as the source of the displacement. It is possible to use one image to displace another.

TIP When an image is applied to itself (Displace Source set to None) HLS Displace gives a fractured, melty absinthe laden appearance to your footage.

Edge Mode
Edge mode determines how the pixels will be filled along the edges of the image when the distortion moves the image such that the underlying footage below or background color can be viewed. By using one of these methods, the footage below will not show through.

Repeat Edge pixels
Repeat Edge Pixels will repeat the pixel closest to the uncovered area. This will give a stretched look from the edge of the distorted footage to the edge of the comp.

Wrap Around
Wrap Around will use pixels from the opposite side of the footage to replace the empty areas.

Reflect Edge Pixels
Reflect Edge Pixels will use a reflection of the closest pixels to the edge of the areas that are uncovered. This is the most commonly used setting.

Softness

Softness applies a blur to the Displace Source. This is done to soften harshness in a displacement map. If you find that the results look jagged, increase this parameter.

Angle
Angle determines the direction of the distortion based on the hue of the pixel that is being used to distort on the displacement map. The Hue starts with red and cycles back to red after traveling through orange, yellow, green, blue and violet.

Hue Min Angle
Hue Min Angle determines the direction of the pixels that are on the yellow side of red in the displacement map.

Hue Max Angle
Hue Max Angle determines the direction of the pixels that are on the violet side of red in the displacement map.

The distance that the displacement travels is based on the Lightness and Saturation in the Displace Source. The Light Displace and Saturation Displace are added together to determine that distance.

Light Displace
Light Displace is the strength or magnitude of the contribution of lightness to the total displacement distance.

Saturation Displace
Saturation Displace is the strength or magnitude of the contribution of saturation to the total displacement distance.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

HyperHarmonizer

Hyper Harmonizer creates incredibly mesmerizing geometric images. These are useful for animated logo designs or just animated elements in a larger piece.

HyperHarmonizer is a visual element generating plug-ins designed using sine-wave curves and other mathematical constructs. A line is drawn by a point that loops around circles that loop around circles. This also happens to be the way that early astronomers explained the rotation of the planets around the sun.

This plug-in creates beautiful and interesting patterns from geometrical constructions. When there are 2 harmonizers, the B Shape will control the second harmonizer.

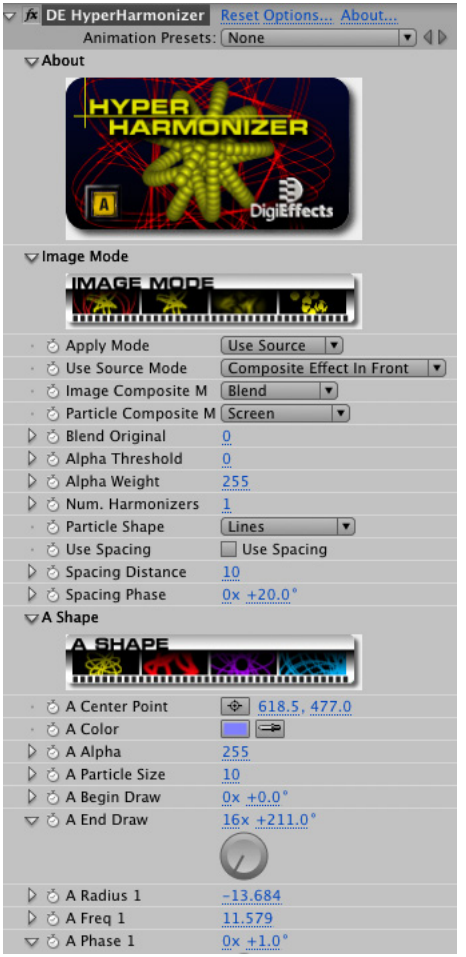
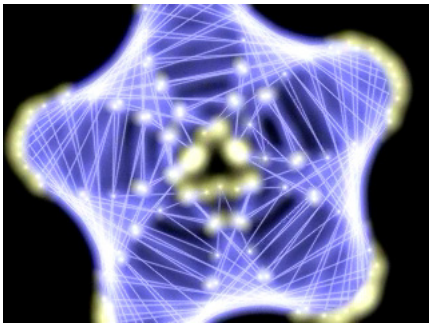
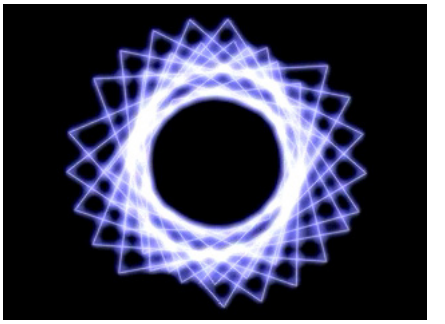


Image Mode
Apply Mode
Use Source Mode
Image Composite Mode
Particle Composite Mode
Alpha Threshold
Alpha Weight
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.



2 Layes of Hyper Harmonizers, one using "Spacing".



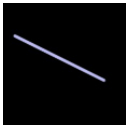
Another interesting shape.

Num Harmonizers
This controls the number of harmonizer generators. Each one will create a single, possibly very complicated curve.

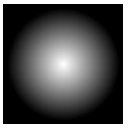
Particle Shape
Use this to define the particle shape that makes up the line for the Harmonizer. Select "Line" for a faster render.

Star

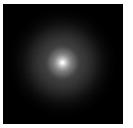
Oval



Line



Soft & Bright



Harsh Falloff

Dot

Use Spacing
Allows you to set a distance between drawing points. You will be able to create space between the segments. If "Line" is used as a particle shape, this control will make the line jagged (which is a cool effect.)

Spacing Distance

Use this to control the amount of space between segments when “use Spacing” is checked.

Spacing Phase
This is the phase of the spacing segments. Animate this to “Move” the particles along thier paths. A smoother method is to use the “Phase” parameters.

A Shape
This section defines the hyperharmonizer graphic element using 3 sets of sine-wave generators.

When there is greater than 2 harmonizers, B Shape will control the last harmonizer and all other harmonizer shapes will be calculated as the values between A Shape and B Shape (i.e., in a 3 harmonizer setup, the color of the second harmonizer would be the middle color between harmonizers 1 and 3).

A Center Point
This defines the center of the harmonizer.

A Color
This controls the color of the Harmonizer.

A Alpha
This controls the opacity of the harmonizer.

A Particle Size
This controls the size of the particles when “Particle Shape” is other than “Line.”

A Begin Draw
This is the starting phase of the drawing. Animate this to get a “Drawing it now” animated look.

A End Draw
This is the end drawing point. Use this in conjunction with “Begin Draw” to animate the actual drawing of the path.

The harmonizer is created using 3 sine-wave generators. By defining different values to this bank of parameter, you can get all kinds of interesting effects.

A Radius 1-3 (amplitude)
This controls the maximum radius of this part of the harmonizer function.

A Freq 1-3
This controls the frequency of this part of the harmonizer function.

A Phase 1-3
This controls the phase of this part of the harmonizer function.

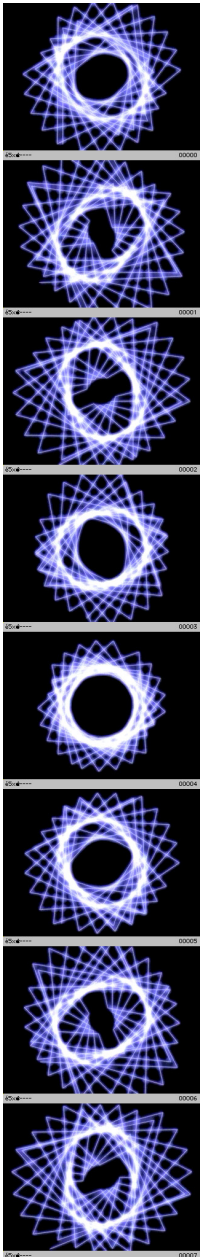
B Shape
The “B Shape” parameters are identical to the “A Shape”. The B shape is the “Bottom” shape when interpolating between more than 1 harmonizer.

Glow

Glow Radius
Glow Radius determines how far the glow will spread. If this is set high, the glow will extend for a large distance around the image. If it is set low, the glow will be concentrated closely around the image.

TIP When Glow Radius is set low, it makes particles glow more brightly. To reduce that effect adjust the Glow Intensity.

Glow Intensity
Glow Intensity determines how brightly the image will glow.



Glow Own Colors
When this box is checked, the glow will be the same as the color of the particles. When this in not checked, the Glow Inner Color and Glow Outer Color determine the color of the glow.

Glow Inner Color
When Glow Own Colors is unchecked, this determines the interior color of the glow.

Glow Outer Color
When Glow Own Colors is unchecked, this determines the exterior, or further from the image, color of the glow.

Color Bias
Color Bias allows for control the weighting of the ramp between Glow Inner Color and Glow Outer Color.

Glow Mode

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Lens Flares

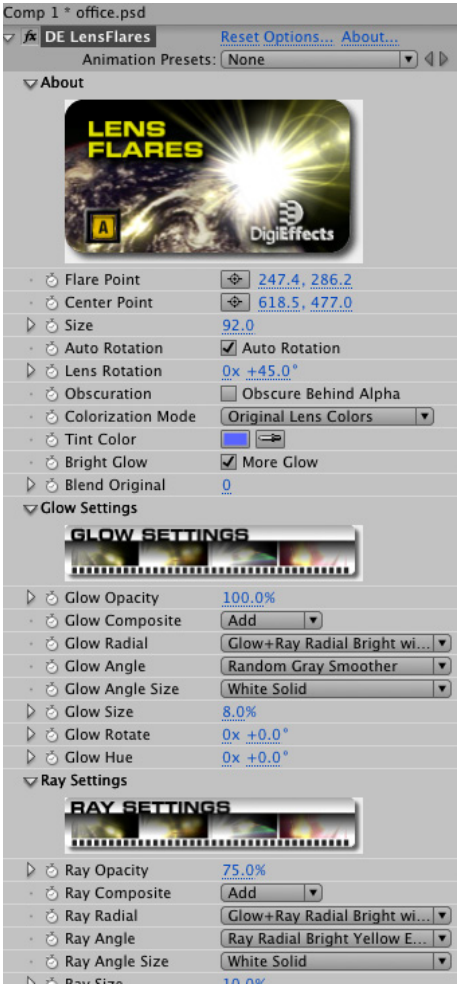
Lens Flares creates a full lens-flare simulation with lots of flexibility in creating custom looks for your flares. You can also obscure and tint the Lens Flare based on color and alpha information within the source image.

Lens Flares are created using 3 different elements. The different elements are composited together within the plug-in to simulate flare effects that occur within camera lenses.

The individual parts of the lens flare (glow, rays and flares) are made using a series of component color gradients swept around a circle. The gradients are used to describe the different components of the part.

The component gradients are called “Radial Color”, “Angular Color” and “Angular Size” and are all defined using gradients. The gradients are built-in and are not editable. You have a choice of over 30 different gradients that describe the different elements. All gradients are usable in any component (even if they may not look correct).

The first set of gradients have labels that describe their intended use. “Glow” means that they should be used in the Glow part. “Ray” means that it is intended for use in the ray part.



Lens flare is tinted from the source image.

Cool "inner Reflection" effects are easy.

"Flare" means that it's intended for use in the flare part. The second word tells you what component of the part it is intended to be used with.

For Example, the gradient named "Glow+Ray Radial Dark Blue" is intended to be used in the glow or ray part, and with the radial component of that part.

The Glow part is used to create a soft, bright sphere of light that simulates the main light source of the lens flare.

The Ray part is used to create the shiny, spiked tendrils that usually extend further outward than the glow part.

The Flares part is used to create the smaller, geometrically shaped components that often spread outward much further than the rays, and can often extend past the edge of the scene. The line which they extend on also rotates as the lens center point is moved.

TIP This effect can be slow, so while testing the results of the effect, you may want to run at half or quarter resolution.

Flare Point
This is the point where the flare originates.

Center Point
This is the center where the "camera" is pointing, it may not necessarily coincide with the center of the frame.

Size
This is the overall size of the flare.

Auto Rotation
Check this to have the rotation and scale of the flare elements to automatically rotate around the center point. This is the default behavior of most lens flare simulations.

Lens Rotation
If "Auto Rotation" is not checked (off),

you may manually rotate the entire lens flare effect with this parameter.

Obscuration
With this checked (on), the lens effect will be “hidden” or “obscured” behind the alpha channel of this layer.

Colorization Mode
This allows you to tint the lens flare effect with a color. The color can be based on the original colors within the lens flare gradients (that make up the different elements of the lens flare), a tint color or color within the source image.

Original Lens Color
Original Lens Color uses the color within the built-in gradients to control the lens coloration.

Tint from Source Image
Tint From Source Image uses the color of the source image to control the color of the flare.

Tint Using Color Below
Tint using Color Below uses the “Tint Color” parameter to control the overall coloration of the flare.

Tint Color
Tint Color is used to colorize the lens flare, when “Colorization Mode” is “Tint using Color Below”

Bright Glow
When checked, this adds a standard brighter glow to the center of the lens flare. The effect is more realistic, but renders slightly slower.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Glow Settings

Glow Opacity
Glow Opacity controls the transparency of the glow effect. Set Glow Opacity to zero to turn off the glow component.

Glow Composite
Glow Composite is the composite mode to use when compositing this element (glow) with the other elements (flare and ray). See the "Image Settings" for descriptions of these composite modes.

Glow Radial
Glow Radial selects the gradient to use to define the "Radial" color of the glow ring. This describes the colors of the "rings" radiating as circles out from the center of the glow.

Glow Angle
Glow Angle selects the gradient to use to define the "Rotational" color of the glow ring. This describes the colors of the angular "rays" that sweep around the center of the glow.

Glow Angle Size
Glow Angle Size selects the gradient to use to define the "Angular Radius" distance of the glow ring. This essentially controls the shape of the overall glow.

Glow Size
Glow Size controls the overall size of the Glow. Larger numbers make the glow larger.

Glow Rotate
Glow Rotate controls the rotation of the Glow.
Glow Hue
Glow Hue allows for the shift of the hue of the glow gradient used to describe the overall color of the glow.

Ray Settings

Ray Opacity
Ray Opacity controls the transparency of the ray. Set this to zero to turn off the ray component.

Ray Composite
Ray Composite is the composite mode to use when compositing this element (ray) with the other elements (flare and glow). See the "Image Settings" for description of these composite modes.

Ray Radial
Ray Radial selects the gradient to use to define the "Radial" color of the ray ring. This describes the colors of the "rings" radiating as circles out from the center of the rays.

Ray Angle
Ray Angle selects the gradient to use to define the "Rotational" color of the ray ring. This describes the colors of the angular "rays" that sweep around the center of the rays.

Ray Angle Size
Ray Angle Size selects the gradient to use to define the "Angular Radius" distance of the ray ring. This essentially controls the shape of the overall rays.

Ray Size
Ray Size controls the overall size of the Rays. Larger numbers make the rays larger.

Ray Rotate
Ray Rotate controls the rotation of the Rays.

Ray Hue
Ray Hue allows for the shift of the hue of the rays gradient used to describe the overall color of the ray.

Ray Num Spikes
Ray Num Spikes is the number of spikey rays that are built-in to the ray components. Larger numbers means more rays.

Ray Thickness
Ray Thickness is the thickness of the Ray spikes. Large numbers means thicker rays.

Flare Settings

Flare Opacity
Flare Opacity controls the transparency of the flare. Set this to zero to turn off the flare component.

Flare Composite
Flare Composite is the composite mode to use when compositing this element (flare) with the other elements (ray and glow). See the "Image Settings" for description of these composite modes.

Flare Color
Flare Color selects the gradient to use to define the "Radial" color of the flare element rings. This describes the colors of the "rings" radiating as out from the center of the flare elements.

Flare Sizes
Flare Size selects the gradient to use to control the maximum size of the individual flare elements. The actual size of the flare elements will not exceed the brightness value of the gradient. Use the "Flare Size" to control the overall size of the flare elements.

Flare Probability
Flare Probability selects the gradient to use to define the probability of a flare appearing along the spread. The brighter the gradient color at that point, the greater the probability that a flare element will appear there.

Flare Size
Flare Size controls the largest potential radius of the flares.

Flare Element Angle
Flare Element Angle controls the angle of the individual flare elements. This allows for the twisting of the flare elements.

Flare Hue
Flare Hue allows for the tinting of the flare by rotating the hue of the flare elements.

Flare Num Flares
Flare Num Flares is the number of flare elements to create.

Flare Shape
Flare Shape defines the shape of the flare elements, either spherical or polygonal. If in "Polygon" mode, you can define the number of sides of the polygon with the "Flare Num Sides" parameter.

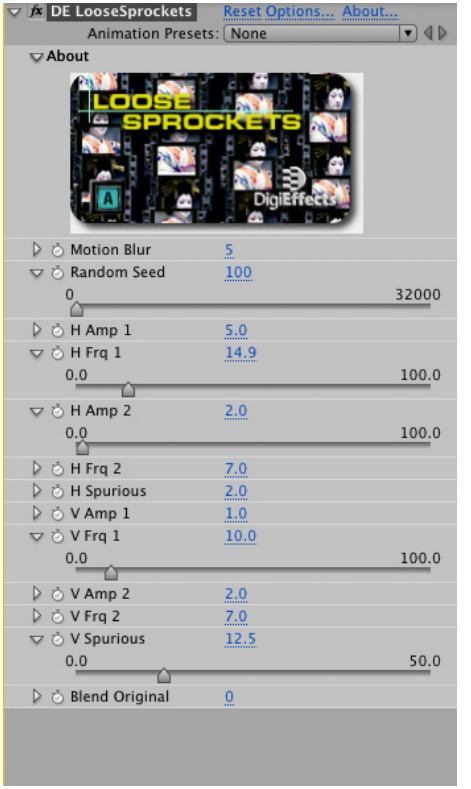
Flare Num Sides
Flare Num Sides describes the number of sides the polygon should have. For triangles, this number is 3. For squares, 4. For Pentagons, 5. For Hexagons, 6.

Flare Seed
Flare Seed is the random number seed for the flare elements. Change this to alter the overall look and arrangement of the flare elements randomly selected components (like distribution of the flare elements on the line and sizes of the individual elements.)

Flare Spread
Flare Spread defines how far apart the flare elements are from each other. Smaller numbers means tighter spacing.

Flare Spread Angle
The Flare elements are lined up using Flare Spread Angle in relation to the center point.

Loose Sprockets



This plug-in simulates a “loose gate” on a projector or film-camera. The basic idea is to create a semi-periodic “organic” waviness motion, and also simulate the occasional “harsh” bump.

The effect uses two sine waves of different amplitude and frequency to define the horizontal and vertical offset. This creates a semi-periodic and natural “wavy” motion.

The spurious amount controls the “jagged” or “Jarring” motion.

The effect is subpixel accurate if the layer in the After Effects timeline is set to high-quality mode.

H Amp 1
H Amp 1 is the amplitude of the first horizontal displacement wave. The higher this number is, the faster the movement.

H Frq 1
H Frq 1 is the frequency of the first horizontal displacement wave. The higher this number is, the faster the movement.

H Amp 2
H Amp 2 - Amplitude of the second

horizontal displacement wave. The higher this number is, the greater the movement.

H Frq 2
H Frq 2 - Frequency of the second horizontal displacement wave. . The higher this number is, the faster the movement.

H Spurious
H Spurious - Amount of random horizontal movement per frame. The higher this number is, the greater the movement.

V Amp 1
V Amp 1 Is the amplitude of the first vertical displacement wave. The higher this number is, the greater the movement.

V Frq 1
V Frq 1 Is the frequency of the first vertical displacement wave. The higher this number is, the faster the movement.

V Amp 2
V Amp 2 Is the amplitude of the second vertical displacement wave. The higher this number is, the greater the movement.

V Frq 2
V Frq 2 Is the frequency of the second vertical displacement wave. . The higher this number is, the faster the movement.

V Spurious
V Spurious Is the amount of random vertical movement per frame. The higher this number is, the greater the movement.

Blend Original
Blend in the original source image.

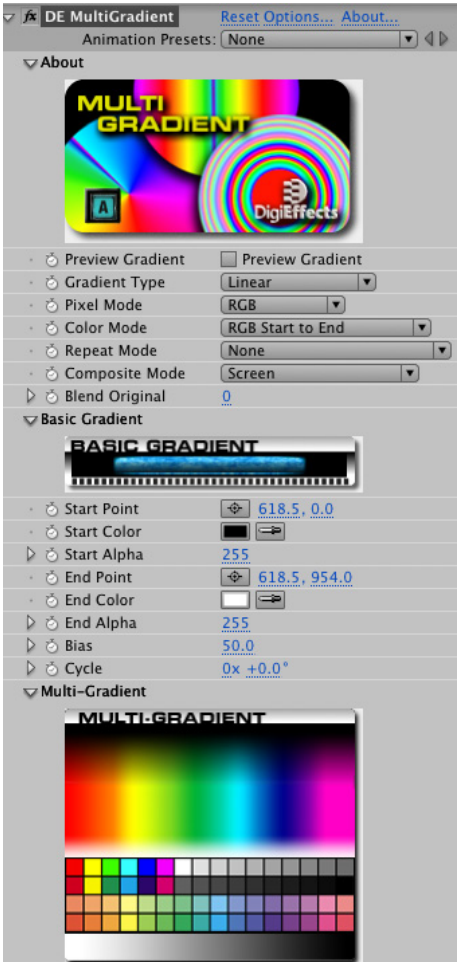
MultiGradient

MultiGradient provides you the ultimate tool for creating and animating color gradients.

You can control the type of gradient, how you want it blended into your footage and the number of colors including alpha.

You can use MultiGradient to create many different effects including sunset skies, alpha masks, border and backgrounds. Use the Sketchist, HLS Displace and other plug-ins to distort and modify the gradient image.

You can use the bias controls and Grad Position controls to locate exactly where in the gradient your colors will be located.



Preview Gradient
When this box is checked, the Comp window will show the basic gradient that is being used to create the effect.

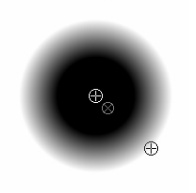
This gives you the opportunity to see what the components of the effect are without having to see it composited with your footage.

Nice artistic effects and backgrounds.

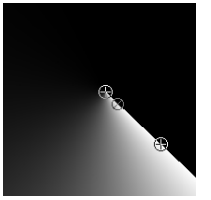
All kionds of cool animation choices.

Gradient Type

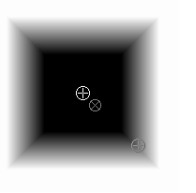
???



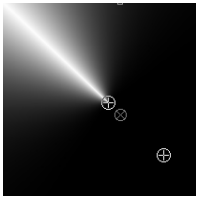
Radial



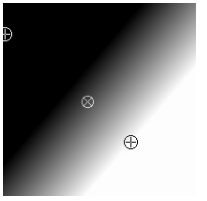
Cone one way



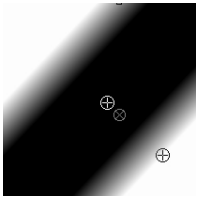
Square



Cone Matchup



Linear



Linear Mirrored

Pixel Mode
Pixel Mode allows for the rendering of only the red, green or blue parts of the gradients.

Color Mode
Defines how the colors are interpolated. RGB Modes interpolate linearly using

the Red, Green and Blue channels. HSB modes interpolate through the colors of the rainbow.

Repeat Mode
Defines how the gradient ramp will repeat. S=Start, E=End

Composite Modes
See “Using Plug-ns” Composite Mode Section (page 13)

Basic Gradient

Start Point
Start Point defines the location of the beginning of the gradient.

Start Color
Start Color defines the color that will be used by the Start Point in the gradient.

Start Alpha
Start Alpha determines the transparency or opacity of the Start Color in the gradient. This is used to give a blended, more transparent appearance to the gradient.

End Point
End Point defines the location of the end of the gradient.

End Color
End Color defines the color that will be used by the End Point in the gradient.

End Alpha
End Alpha determines the transparency or opacity of the End Color in the gradient.

Bias
Bias defines the weight or distribution of the Start and End colors. The lower this number is, the more dominant the Start Color.

Cycle
Cycle allows you to shift the location of the start and end colors in the gradient. The best way to see this is to check on the Preview Gradients option, hold down the option key and rotate the Cycle control.

Keyframing this control is an excellent way to create a dreamy effect.

Multi-Gradient

Multi-Gradient
This pop-up determines how many colors will be in the gradient. The colors will always fall in between the start and end colors. For Example, S ->1 ->E, will provide for a 3 color gradient starting with the start color, transitioning to the Grad 1 Color and ending with the End Color.

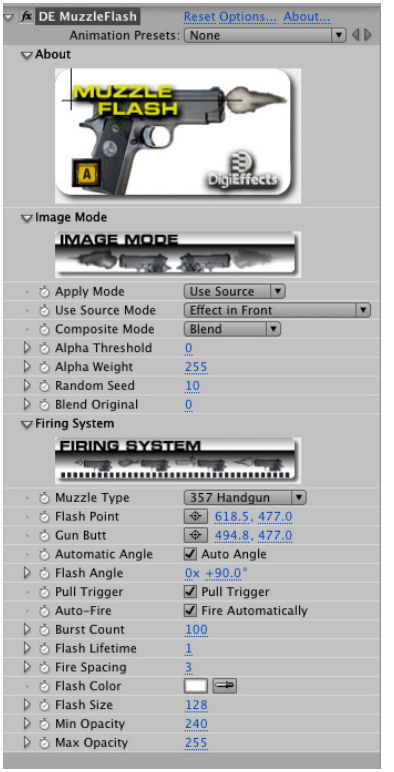
Grad 1 Color
When a multi-Gradient is selected in the Multi-Gradient pop-up, this will determine the color of the Grad 1. As additional colors are added to the gradient with the Multi-gradient pop-up, will begin to colorize the gradient at thier respective positions.

Grad 1 Alpha
Grad 1 Alpha determines the transparency of the Grad 1 color.

Grad 1 Pos
Grad 1 Position determines the position of the Grad 1 color on the gradient relative to the Start Color and End Color.

A good way to see the results of this is to set this to red and slide the control left and right. You should be able to do this with the option key held down and receive near real-time feedback. Notice that as you approach 100% that the interior of the gradient gives a very hard red line. This is because it is squeezing most of the End Color out. As you get to 100%, the entire interior of the layer turns red. This is because the End Color has been completely removed.

Muzzle Flash



Muzzle Flash simulates the gun-flashes that occur when guns are fired. You can control the start of the flash by keyframing the Pull Trigger control and determining the number of flashes. Track the tip of the gun with the Flash Point.

NOTE This effect is designed to work from a side angle of the gun only. It cannot simulate head-on gunfire.

Image Mode
Apply Mode
Use Source Mode
Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Controls in this section are described in the “Using the Plug-ins” section at starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Firing System
Muzzle Type

Each muzzle type will create a different type of muzzle flash.

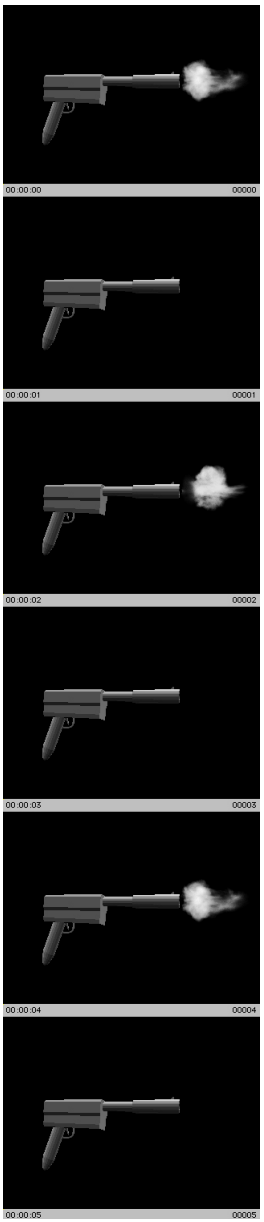
Flash Point
Flash point determines where the beginning of the flash will occur. This is where the muzzle tip should align.

TIP It is also possible to track the muzzle and assign the tracking information to this control.

Gun Butt
Gun Butt only functions when Auto Angle is checked “on”. When it is checked on, the angle of the flash point will be determined by this control. A straight line passing through the gun butt and flash point will determine the flash angle.

Automatic Angle
When this is checked on, the angle of the muzzle flash is determined by a straight line passing through the flash point and gun butt. When this is unchecked, the flash angle is determined by the flash angle control (below).

Flash Angle
Flash Angle only works when Auto Angle is unchecked. When Auto Angle is unchecked, Flash Angle determines the angle of the flash.



Pull Trigger
Pull trigger determines when the flash begins. Keyframe this control if you want the flash to begin after the first frame. Start with it keyframed off and then keyframe it on at the frame where you want the firing to begin. If AutoFire is not checked, Pull Trigger will simply turn the flash on and off.
Auto-Fire
When this is checked, Muzzle Flash will keep firing based on the Burst Count, Flash Lifetime and Firing Space without having to keyframe Pull Trigger. When this is checked, Pull Trigger will control the display of the flash.

Burst Count
Burst count will determine how many times the muzzle flash will occur.

Flash Lifetime
Flash Lifetime determines the number of frames that a flash will last.

Firing Space
Firing spacing determines the number of frames between each of the bursts. This control only applies if the Burst Count is greater than 1.

Flash Color
Flash Color determines the color of the muzzle flash.

Flash Size
Flash Size determines how large or small the muzzle flash will be. The larger this number gets, the larger the flash size.

Min Opacity
Min Opacity determines how transparent the thinnest part or most transparent parts of the flash will be.

Max Opacity
Max Opacity determines how opaque or non-see through the thickest parts of the flash will be.

Nexus

Nexus means connection. Nexus will generate animated graphic elements from geometrical constructions. It creates bars of light that move in a rhythmic fashion and fade away.

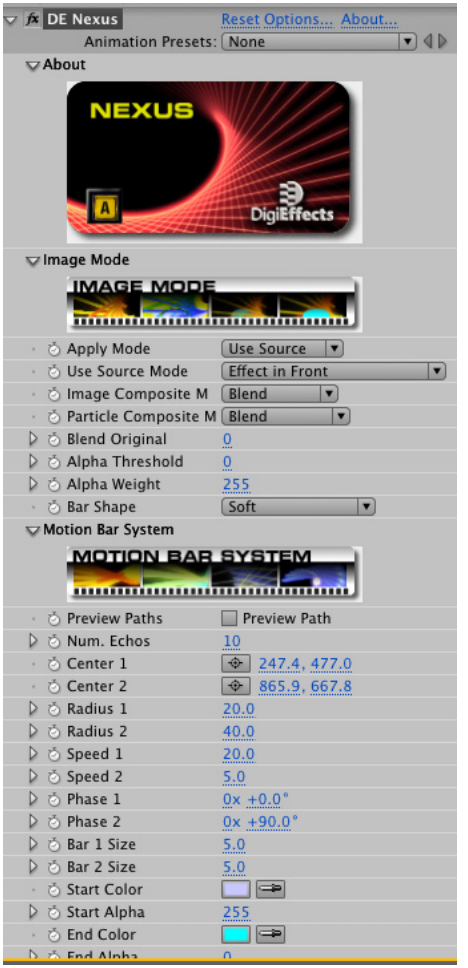
The effect is generated by creating a bar that rotates around two circles and fades out over time (Num Echos).

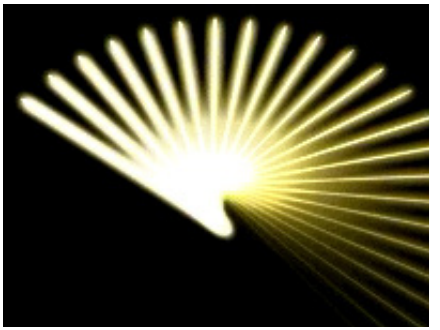
Rendering a line along the rotation of the circles (Speed 1 & 2) gives the bars motion.

The Radius (1 & 2) determines the distance of the ring from the centers of each bar.

TIP Use the “Preview Path” to see the path and speed of the two circles. This will make it easier to visualize the motion of the system.

Image Mode
Apply Mode
Image Composite Mode
Particle Composite Mode
Blend Original
Alpha Threshold
Alpha Weight
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.





Nexus creates great motion graphics elements.

Use as a mezmerizer to attract attention.

Bar Shape

Soft Thin Square(*)

(*): Soft, Medium, Hard

Bar System

Preview Paths
When this box is checked, the motion path circles that form the basis of the effect can be seen. This is an excellent way to pre-visualize how the bars will move.

Num Echoes
Num Echoes determines how many bars will appear in your footage.

Center 1
Center 1 determines the location of the center of the first circle. When preview paths is on it is the red circle.

Center 2
Center 2 determines the location of the center of the second circle. When preview paths is on it is the green circle.

Radius 1
Radius 1 determines the radius of the first or red circle that determines one end of the bars.

Radius 2
Radius 2 determines the radius of the second or green circle that determines one end of the bars.

Speed 1
Speed 1 determines the rate at which one end of the bars will move around the circumference of the first circle.

Speed 2
Speed 2 determines the rate at which one end of the bars will move around the circumference of the second (green) circle.

Phase 1
Phase 1 determines the point on Circle 1 (the red circle) where it is touched by the first bar.

Phase 2
Phase 2 determines the point on Circle 2 (the green circle) where it is touched by the first bar.

TIP By making Phase 1 and Phase 2 opposites you can have the bar spinning around itself.

Bar 1 Size
Bar 1 size determines the size of the side of the bar that touches Circle One (the red circle).

Bar 2 Size
Bar 2 Size determines the size of the side of the bar that touches Circle Two (the green circle).

TIP By animating the bar size, it is possible to create the illusion that the bars are moving towards you. The side that is larger should look as if it is closer.

Start Color
Start Color determines the color of the first or lead bar.

Start Alpha
Start Alpha determines the transparency of the first or lead bar.

End Color
End Bar Color determines the color of the last bar.

End Alpha
End Alpha determines the transparency of the last bar.

TIP By setting End Alpha low, the bars will look as though they are fading away over time.

Glow

NOTE Glow Radius and Glow Intensity work together. If either of them is set to zero, you will not generate any glow.

Glow Radius
Glow Radius determines how far any glow that the bars have will extend from the bars.

NOTE The glows blend and add to each other where they overlap and can quickly become pure white.

Glow Intensity
Glow intensity determines how strongly the bars will glow.

Glow Inner Color
Glow Inner Color determines the color of the glow closest to the bars.

Glow Outer Color
Glow Outer Color determines the color of the glow at the glows edges.

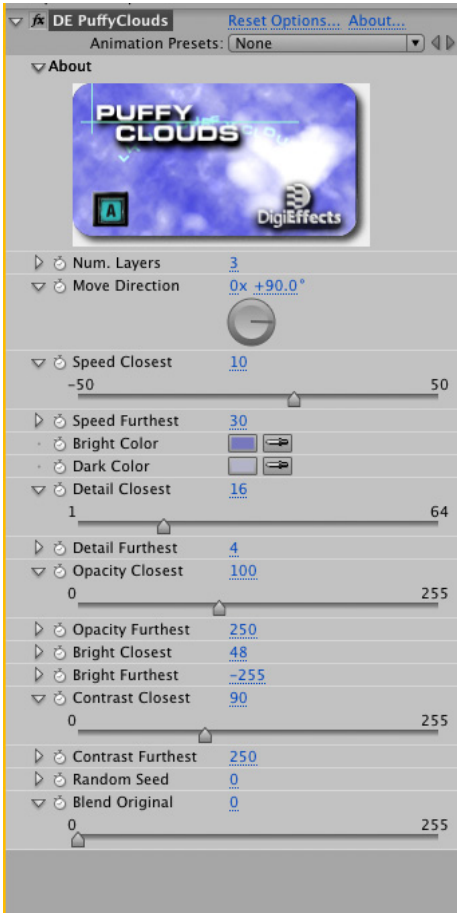
Color Bias
Color Bias determines the position or balance of the inner and outer colors in the glow. The further to the left (or lower numbers) that this is set, the more the inner glow color will dominate the glow.

Glow Mode

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Puffy Clouds



Puffy Clouds creates moving colored puffy clouds. It will automatically animate and you can control the speed, direction color and opacity of the cloud.

By working with more than one layer and adjusting Speed Closest and Speed Furthest the effect will simulate the appearance of depth.

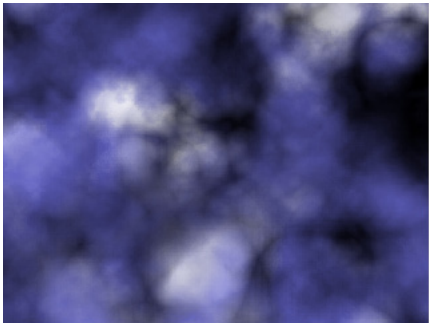
Num Layers
Num Layers determines how many cloud layers will be placed with the Puffy Clouds effect.

Move Direction
Move Direction determines the general or average direction of the clouds. There will be a degree of chaotic motion in the clouds.

Speed Closest
Speed Closest determines the speed of the slowest layer of clouds.

Speed Furthest
Speed Furthest determines the speed of the fastest layer of clouds.
Bright Color

Clouds over an image.



You can define the colors within the cloud.

Bright Color determines the color of the lightest parts of the clouds (as determined by Bright Closest and Bright Furthest below).

Dark Color
Dark Color determines the color of the darkest parts of the clouds.

Detail Closest
Detail Closest controls the minimum amount of detail in the clouds. When this is set high, the clouds will have a great deal of detail.

Detail Furthest
Detail Furthest determines the maximum amount of detail in the clouds possible. When this is set high, the clouds will seem smaller and further away.

NOTE Detail Closest and Detail Furthest are the outer limits of what the clouds will look like. Individual Cloud Layers will lie between these values.

Opacity Closest
Opacity Closest determines the maximum opacity of any of the clouds.

Opacity Furthest
Max Opacity determines the maximum opacity of any of the clouds.
Bright Closest
Bright Closest determines how bright or light the closest clouds will be.

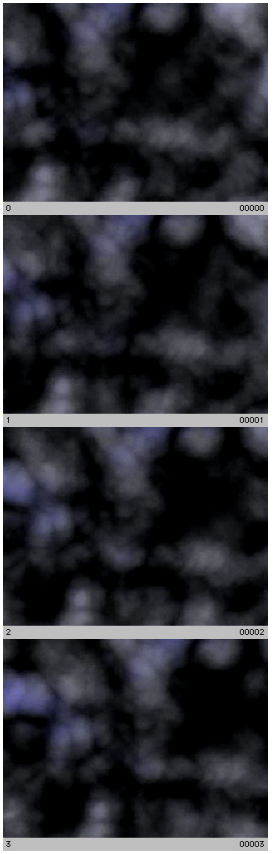
Bright Furthest
Bright Furthest determines how bright or light the furthest clouds will be.

Contrast Closest
Contrast Closest determines how much contrast the closest clouds will have.

Contrast Furthest
Contrast Furthest determines how much contrast the furthest clouds will have.

Random Seed
Random Seed is the seed value (think of it as a start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly change values causing animation to be rough.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.



RainFall

RainFall simulates a summer rainstorm. It automatically animates and the rain drops can fall on the edges of the source image.

Rainfall is a particle system that easily and elegantly handles rain effects through a realistic rain simulation.You can bounce and splash rain off objects.

The Rain System generates the rain. You can determine where the rain will fall from (Generate From) and whether or not it will splash off of anything using “Splash Via.”

You can also control the amount, size and opacity.Wind, Gravity and Gusts control the rains behavior from the time it falls until the time it hits something or disappears from the composition. Gravity, Wind and Gusts can all have an impact on the path of the raindrops.

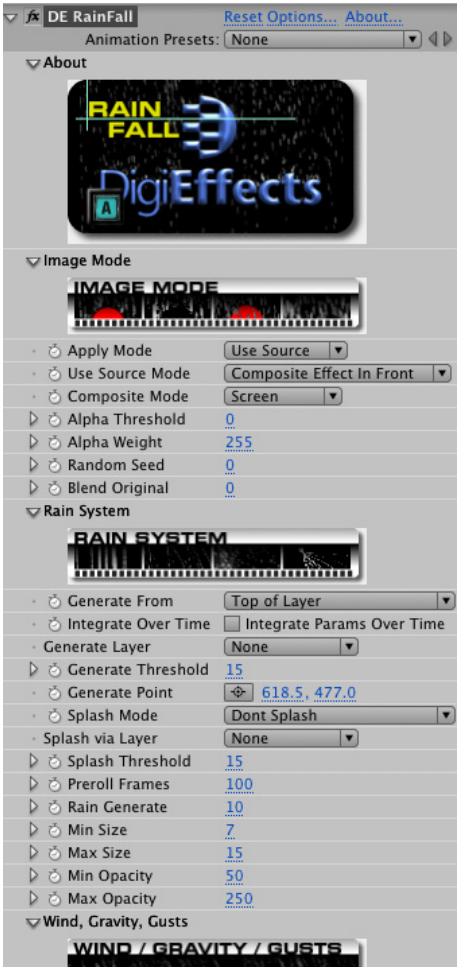
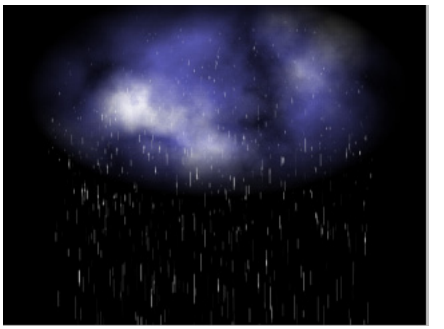


Image Mode
Apply Mode
Use Source Mode
Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend Original
Preroll Frames
Generate From
Generate Layer

Rain falling and splashing on a logo.


Rain is falling only from the cloud.

Generate Threshold
Generate Point
Controls in this section are described in the "Using the Plug-ins" section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Rain System

Splash Mode

Splash Mode determines if and how the rain drops will splash in the footage.

Don't Splash
When selected, there will be no splashing of the rain drops anywhere in the footage.

Splash On Bottom
When selected, Splash on Bottom will make the rain drops splash as they hit the bottom of the layer to which the effect is applied.

Splash on Alpha > Threshold via Vert Height
Splash on Alpha > Threshold via Vert Height will cause the rain to splash on the first vertical pixel IN THE ALPHA CHANNEL detected. The threshold control will determine which pixels in the alpha channel will be detected as the first pixel to pile up on. α means alpha. α means alpha.

Splash on RBG > Threshold via Vert Height

Splash on RBG > Threshold via Vert Height will cause the rain to splash on the first vertical pixel in the image detected. The threshold control will determine which pixels in the image will be detected as the first pixel to splash on.

Splash on Alpha > Threshold via 2D
Splash on RGB > Threshold via 2D creates a mask that works in all directions to define areas of the layer where the rain will splash.

Splash via Layer

None
Layer "X"

This defines the layer that controls if a rain drop will splash at a specific location.

Splash Threshold

This defines the minimum value for a pixel in order for a droplet to splash on the source image or "Splash Via Layer" image.

Rain Generate

Rain Generate determines how much rain will fall per frame. This could be considered the volume control.

Min Size
Min Size determines the smallest possible size for a rain drop.

Max Size
Max Size determines the largest possible size for a rain drop.

NOTE Min Size and Max size are the outer limits for the size of the rain drops. The drops will be a size in between these extremes.

Min Opacity
Min Opacity determines the amount of transparency that the drops can have. The lower this number, the more transparent or see through.

Max Opacity
Max Opacity determines how opaque (non-see through) that the rain drops can be.

Wind, Gravity, Gusts

Gravity
Gravity determines how fast the rain will fall. The higher this number, the faster the raindrops will fall and become longer due to a motion blur applied to the rain drops.

Wind Horiz
Wind Horiz determines the speed at which the rain drops will move to the sides. When this number is positive, the rain will fall from left to right. when the numbers are negative, the rain will fall from right to left.

Wind Vert
Wind Vert increases or decreases the vertical speed of the rainfall. This can be used to increase the initial speed which in many cases starts at zero.

NOTE Gusts are blasts of wind that move the rain horizontally for short periods of time.

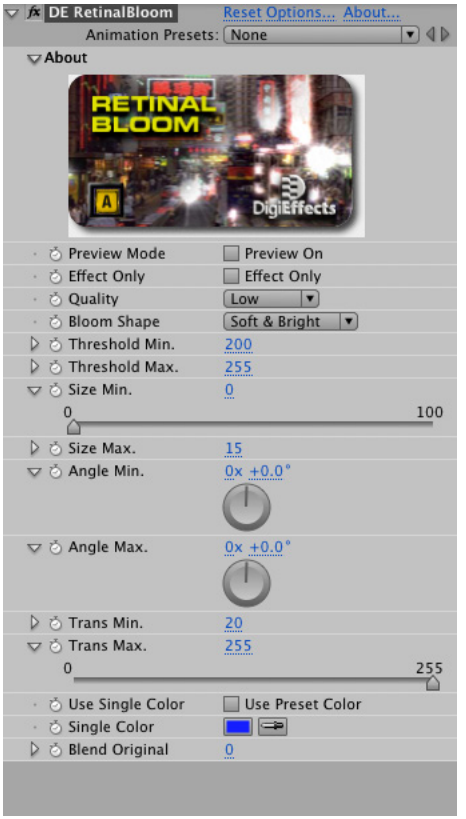
Gust Probability

Gust Probability determines the likelihood of a gust occurring at any given time.

Gust Max Duration
Gust Max Duration determines how long the gusts will last once they do occur.

Gust Max Speed
Gust Max Speed determines how far the gust will move the raindrops horizontally.

Retinal Bloom



Retinal Bloom simulates a special type of in-camera lens flare effect that "blooms" or causes a lens flare at specific points in an image. You can define the lens-flare aperature shape, size, transparency and color. You can define the dark and bright areas that will bloom.

Preview Mode
When this box is checked, colored pixels will be placed over any area that will bloom. This makes it much easier to see the affected area in areas of the footage where the bloom effect may be too subtle to see, and it is very interactive for setting the threshold min/max values.

Effect Only
When this box is checked, only the effect that is created with Retinal Bloom will be seen. None of the original image will show through. This makes it possible to see exactly what the effect is without seeing the original unaffected footage.

Quality
The three quality levels significantly vary the effect. Each higher level will give a more blossomed look and have a slightly softer appearance to the look of the bloom. There is also a significant slow-down for each higher level of quality.

NOTE Since the effect is very different

Retinal Bloom is useful when used with MultiGradients.

Simulate psychometric camera and eye effects.

depending on these quality levels, previewing in low quality and final rendering in high quality will not work. The final render will look nothing like the preview.

NOTE You may see a grid pattern when the effect quality is set to low. When you change the quality to normal or high, this will occur less or not at all.

Threshold Min
Threshold Min determines the lightest pixels that will have the Retinal Bloom effect applied.

Threshold Max
Threshold Max determines the darkest pixels that will have the Retinal Bloom effect applied.

NOTE Once the minimum and maximum sizes have been determined with the size controls, the placement of the various blooms will be based on the threshold levels. The largest blooms will be placed on the pixels that are closest to the threshold max. The smallest will be placed on the pixels that are closest to the threshold min.

All other blooms will be placed on the pixels whose threshold value match the associated size. The simplest way to think of it is this: Bright pixels, big blooms. Dark pixels, small blooms. Medium pixels, medium blooms. Bright and dark are determined by the threshold settings.

Size Min
Size Min controls the size of the smallest blooms that will be placed on the footage.

Size Max
Size Max determines the largest bloom size that will be placed on the footage.

NOTE Only non-round Bloom Shapes will be affected by the Angle Min and Angle Max controls. This is due to the fact that perfectly round particles will not look different at different rotation angles.

Angle Min
Angle Min determines the minimal angle at which the bloom particles will be placed on the footage.

Angle Max
Angle Min determines the minimal angle at which the bloom particles will be placed on the footage.

NOTE Angle distribution is based on luminance where darkest pixels are minimum and brightest are max.

Trans Min
Bloom Object Minimum transparency (also Opacity)

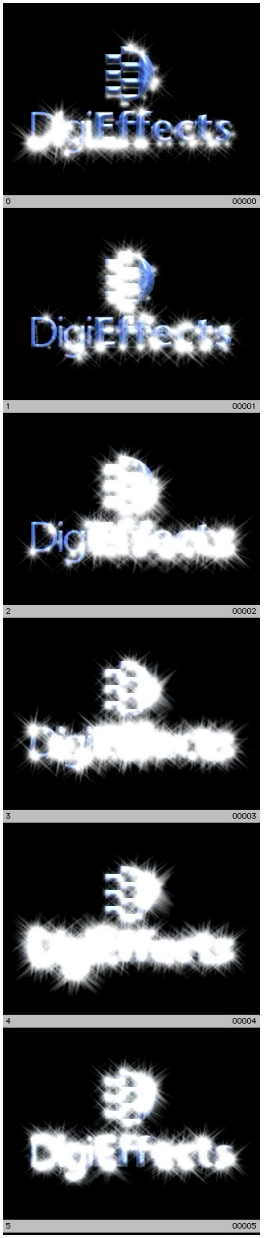
Trans Max
Bloom Object Maximum transparency (also Opacity)

Use Single Color
When this box is checked, the blooms color will be determined by the "Single Color Control." When this box is unchecked, the bloom will be determined by the pixel colors of where the bloom is placed on the footage.

TIP This coloring of the blooms by the footage color can be easily seen if the Retinal Bloom effect is applied and then the effect only box is checked. Then slide the Threshold minimum slider down and the underlying colors will begin to show (as more colors in the footage are allowed to be affected by the Retinal Bloom plug-in).

Single Color
When the Use Preset Color box is checked, this control will determine the color of the blooms that are put on the footage.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

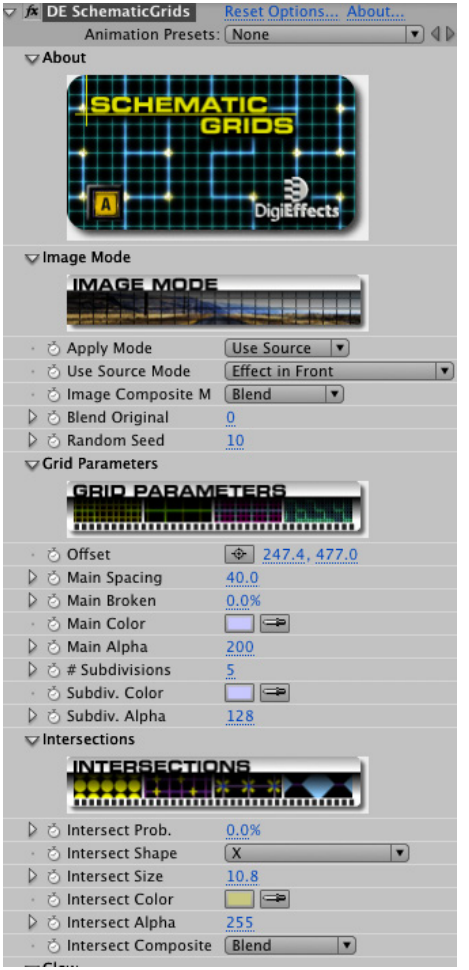


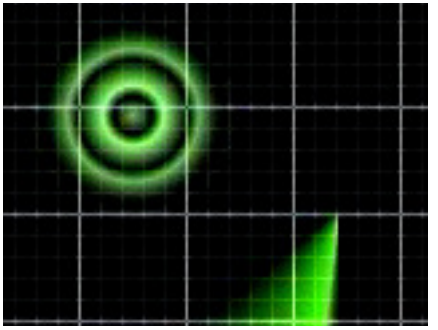
Schematic Grids

Schematic Grids creates a dual-resolution grid that you can scroll around, and also includes the ability to "break" the segments of the grid. You can also place items at the corners of the intersections on the grid.

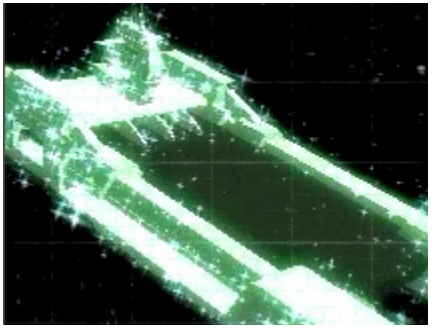
This is another of the graphic element generators that are a part of Delirium. We have to give a special thanks to Jeff Taylor of Alloy Wrecking Crew, the designers who designed all of the art that comes with Delirium including the UI elements, the box, manual cover and sales literature. His persistence forced us to include this plug-in in the set. Thanks Jeff!

Schematic Grids creates grid patterns that can be subdivided, have broken lines and have objects placed on its intersections.





Great for creating "scanner" systems.



Cool for space-battle scenes.

Image Mode
Apply Mode
Use Source Mode
Image Composite Mode
Blend Original
Random Seed
Controls in this section are described in the "Using the Plug-ins" section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Grid Parameters

Offset
Offset determines the location of the grid in the composition. Animating this parameter allows for moving the position of the grid across the layer.

Main Spacing
Main Spacing determines the space between the lines in the grid. The higher the number, the greater amount of space between the lines in the grid. It does NOT increase the size of the grid, the subdivisions or the intersections.

Main Broken
Main Broken gives a probability that any given segment in the main grid pattern will be missing making the overall grid "broken".

Main Color
Main Color determines the color of the main grid pattern.

Main Alpha
Main Alpha determines the transparency of the lines that make up the main grid.

 # Subdivisions
Subdivisions determines the number of lines that will be generated between each line in the main grid. These lines are referred to as subdivisions or subdivision lines. This number is always a whole number. Do not animate this value, as it will cause popping. Animate the Main Spacing instead.

Subdiv Color
Subdiv Color determines the color of the subdivision lines.

Subdiv Alpha
Subdiv Alpha determines the transparency of the subdivision lines.

Intersections

Intersections are objects that are placed on the points on the grid where main grid lines intersect.

Intersect Prob
Intersect Prob determines the likelihood of the intersect shape appearing on any given intersection.

Intersect Shape
Intersect Shape are the various objects or shapes that can appear on the intersections. The following are the types of shapes available.

Intersect Size
Intersect Size determines the size of the intersect shapes that appear on the intersections.

Intersect Color
Intersect Color determines the color of the intersect shapes.

Intersect Alpha
Intersect Alpha determines the transparency of the intersect shapes. Smaller numbers give a more transparent Intersect Shape.

Intersect Composite
This defines how the intersect image blends with the grid. See page 13 for information on composite mode.

Glow
Glow Radius and Glow Intensity work together to determine the size of the

glow. These controls apply to both the Main Grid and the Grid Subdivisions.

Glow Radius
Glow Radius determines the distance from the lines in the grid that the glow will extend.

Glow Intensity
Glow Intensity determines how brightly the grid will glow.

Glow Mode

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Show Channels

This plug-in was created to view each of the channels on an layer individually.

After Effects has controls that allow for the viewing of the channels of the entire composition (red, green and blue channels). After Effects shows the channels of a complete composite.

Show Channels will let you view the individual layers channels for the layer to which the effect is applied.

This is more of a utility than an artistic effect.

Channels

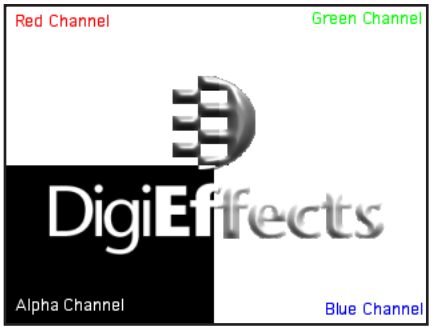
Red will show the red channel only.

Green will show the green channel only.

Blue will show the blue channel only.

Alpha will show the alpha only.

RGB No Alpha shows the Red, Green and Blue channels without the alpha.

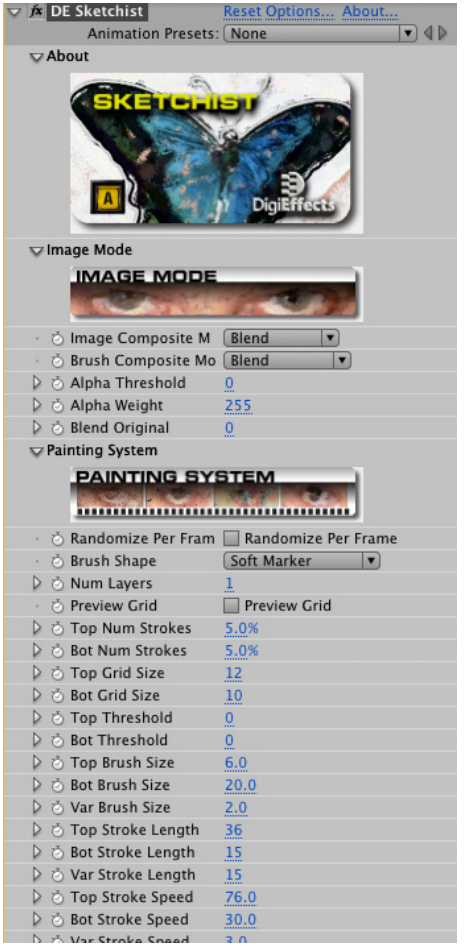


Showing each of the four modes for the channels.

Blend Original

Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Sketchist



The underlying idea of Sketchist is based on the concept of human painting. Sketchist creates it's effect by applying thousands of curved brushstrokes that each follow the contours of the source image. This mimics the way humans see objects, and the results are simply stunning.

We must note that Sketchist is a rather slow effect because it's doing a tremendous amount of work. It's applying tens of thousands of individual brushstrokes over the image. This takes time to process. So, we will give you a few tips on getting faster previews so you can get the exact effect you want with the least trouble.

Sketchist generates a placement grid based on the perceptual differences in the image structure. Sketchist uses a human vision perceptual model to define where the brush strokes will be placed. You can control the overall density of the grid, the perceptual threshold and the total number of strokes applied to the grid.

It then begins to render each brush, following the contours of the image (the "path of the stroke") until it finds a pixel in the source image that is too far out of color range from the point where the stroke was first started. You can control the maximum number of

use sketchist to create animated backgrounds.

Great for interstitials, openers and bumpers.

steps each stroke takes along it's path using the Stroke Length" parameters. You can control how fast each stroke moves (which can give a more precise or more sketchy look) using the "Stroke Speed" parameters. You can control how "curvy" the stroke is with the "Curviness" parameter. You can also control the maximum size of the stroke, from which a random size is selected.

Some sets of parameters have a "Var" parameter, which sets the maximum amount of randomness for that parameter. The higher this value the more scattered and organic the effect will be. A smaller value will look more uniform and precise.

You control the overall opacity of the strokes with the "Brush Opacity" controls. You can modify the color of the stroke with the Color controls. You can modify the red, green, blue, hue, brightness and saturation variability with these controls.This will give a more organic look with larger variations.

Sketchist can paint over a solid color, or the source image. Sketchist allows you to select a background color as a canvas.

Sketchist paints in "layers", from the bottom to the top. If there is only one layer, only the top layer is used. For more than two layers, Sketchist will linearly interpolate the values between the "Top" and "Bottom" layer sets of parameters. For example, if the Top Brush Size was 100 and the Bottom Brush Size was 50, the middle layers' brush size would be 75.

Rendering and Artistic Tips

• Render only with "Num Strokes" at .1% (or less) to speed up rendering, for checking out the size and color of brush strokes.

• Turn on "Preview Grid", and modify the "Num Strokes", "Grid Size", and

"Threshold" values to achieve an even and not-too populated grid.

• Set the size of the brush strokes lower in order to speed rendering.

• The trick is to get the fewest number of strokes rendered while creating enough coverage in order to have enough brush strokes to cover the entire image.

• Start with 1 layer, and experiment only with the "Top" parameters.

• When rendering 2 layers, in order to see the results of the second layer, turn the "Top Num Strokes" parameter to zero, and adjust only the "Bot" parameters.

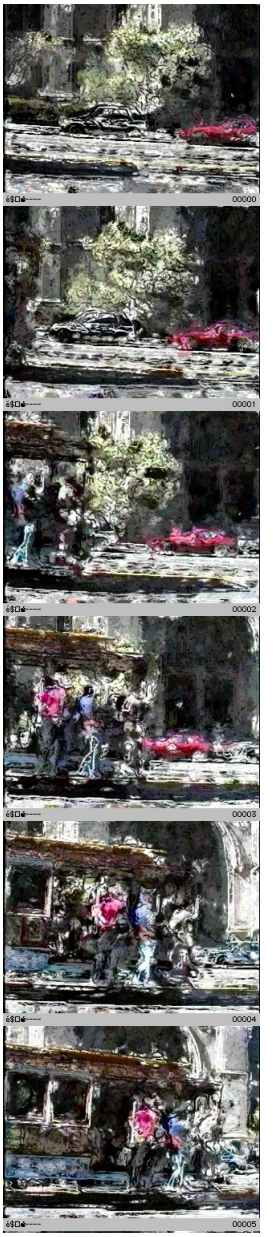


Image Mode
Image Composite Mode
Brush Composite Mode
Alpha Threshold
Alpha Weight
Blend Original
Randomize Per Frame
Controls in this section are described in the "Using the Plug-ins" section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Painting System
The parameters below control the overall painting system.

Brush Shape
Brush Shape is the shape of the brush used to make the stroke. Here are images of the strokes:

Num Layers
Num Layers controls the total number of layers to paint (bottom to top).

Preview Grid
Preview Grid will preview the grid so that where the brush strokes will be placed can be seen. This is useful for measuring density of strokes. The green dots are the top stroke placement and red dots are the bottom stroke placement indicators.

Top Num Strokes
Top Num Strokes defines the total number of strokes to apply to the grid, as a percentage of a "full" grid for the top layer of painting.

Bot Num Strokes
Bottom Num Strokes defines the total number of strokes to apply to the grid, as a percentage of a "full" grid for the bottom layer of painting.

Top Grid Size
Top Grid Size defines the spacing (in pixels) between each grid point for the top layer of painting.

Bot Grid Size
Bottom Grid Size defines the spacing (in pixels) between each grid point for the bottom layer of painting.

Top Threshold
Top Threshold defines the perceptual threshold to restrict the placement of brush strokes. Experiment with this parameter, the Grid Size, and the Num Strokes parameters with Preview Grid turned on to get a feel of where strokes will be placed for the top layer of painting.

Bot Threshold
Bottom Threshold defines the perceptual threshold to restrict the placement of brush strokes. Experiment with this parameter, the Grid Size, and the Num Strokes parameters with Preview Grid turned on to get a feel of where strokes will be placed for the bottom layer of painting.

Top Brush Size
Top Brush Size controls the maximum size of the brush strokes (in pixels) to be placed for the top layer of painting.

Bot Brush Size
Bottom Brush Size controls the maximum size of the brush strokes (in pixels) to be placed for the bottom layer of painting.

Var Brush Size
Var Brush Size allows for variations in the sizes of the brushes used (as defined in Top Brush Size and Bottom Brush Size). The higher this number, the greater the variation in the brush size.
Top Stroke Length

Top Stroke Length determines the length of the stroke as a number of “steps”, and the distance of each step being controlled by the “Stroke Speed”. The higher this number, the longer the potential path of the brush stroke.

Bot Stroke Length
Bottom Stroke Length determines the length of the stroke as a number of "steps", and the distance of each step being controlled by the "Stroke Speed". The higher this number, the longer the potential path of the brush stroke.

Var Stroke Length
Var Stroke Length allows for variations in the length of the brushes The higher this number, the greater the variation in the Stroke Length.

Top Stroke Speed
Top Stroke Speed controls how fast each stroke travels for each step. Speed is defined in #/pixels per frame divided by 100.

Bot Stroke Speed
Bottom Stroke Speed controls how fast each stroke travels for each step.Speed is defined in #/pixels per frame divided by 100.

Var Stroke Speed
Var Stroke Speed allows for variations in the speed of the brush strokes The higher this number, the greater the variation in the Stroke Speed.

Top Curviness
Top Curviness controls the maximum amount of curviness in the stroke path. Higher values mean curvier strokes.

Bot Curviness
Bottom Curviness controls the maximum amount of curviness in the stroke path. Higher values mean curvier strokes.

Var Curviness
Var Curviness allows for variations in the curviness of the brushes The higher this number, the greater the variation in the Curviness.

Top Brush Opacity
Top Brush Opacity determines how opaque the brush stroke is. Higher numbers provide greater opacity.

Bot Brush Opacity
Bot Brush Opacity determines how opaque the brush stroke is. Higher numbers provide greater opacity.

Var Stroke Opacity
Var Stroke Opacity allows for variations in the opacity of the brushes. The higher this number, the greater the variation in the opacity.

Color
The various Color controls manage the color variation in the image. These values are not dependent on the painting layer.

Red Randomize
Red Randomize determines the amount of randomization of the red color of the stroke. Higher numbers mean more change.

Green Randomize
Green Randomize determines the amount of randomization of the green color of the stroke. Higher numbers mean more change.

Blue Randomize
Blue Randomize determines the amount of randomization of the blue color of the stroke. Higher numbers mean more change.

Hue Randomize
Hue Randomize determines the amount of randomization of the hue of the stroke. Higher numbers mean more change.

Sat Randomize
Sat Randomize determines the amount of randomization of the saturation color of the stroke. Higher numbers mean more change.

Bri Randomize
Bri Randomize determines the amount of randomization of the brightness color of the stroke. Higher numbers mean more change.

Background Mode

Use Original Image
This uses the source image as the canvas surface. Strokes are applied over the source image.

Use Background Color
This uses a solid color as the canvas surface. Strokes are applied over the color specified.

Smoke

Smoke creates a realistic, billowing colored smoke effect. You can control the amount of smoke, and it can be generated from a logo.

This plug-in is complementary to the “Fire” plug-in.

The smoke will always be growing in size from the time it is born until it fades out, this includes from before the fade up stage all the way through the fade out stage of the smoke.

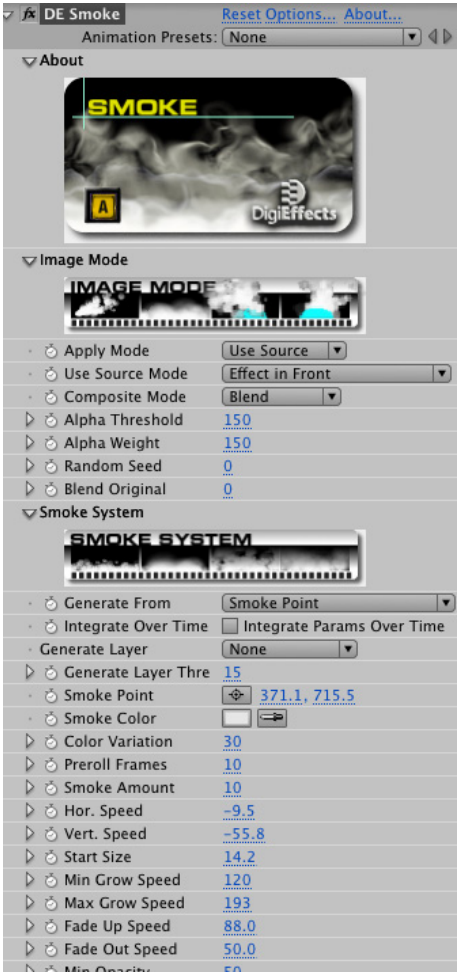
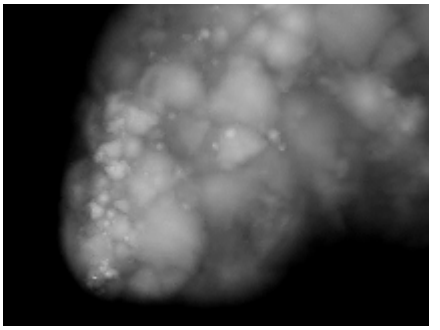


Image Mode
Apply Mode
Use Source Mode
Composite
Alpha Threshold
Alpha Weight
Random Seed
Blend With Original
Generate From
Integrate Params Over Time
Generate Source
Generate Threshold
Smoke Point
Preroll Frames

Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.



Smoke from the Smoke Point.

Smoke emitting from a logo.

Smoke System

TIP This is the best way to generate smoke from text or a company logo that has an alpha channel.

Smoke Color
Smoke Color determines the color of the smoke.

Color Variation
Color Variation varies the brightness of the color of the smoke.

NOTE This will not change the tint or hue color (i.e., you will not get yellow smoke in the midst of gray smoke). It only varies the brightness, making some smoke brighter and some darker.

Smoke Amount
Smoke Amount determines how much smoke will be generated per frame.

Vert. Speed
Vert Speed determines the rate at which the smoke rises. The higher the number (whether positive or negative) the faster the speed of the smoke. Negative numbers will make the smoke rise and positive numbers will make the smoke fall.

Min Grow Speed
Min Grow Speed determines the slowest speed at which the smoke can grow.

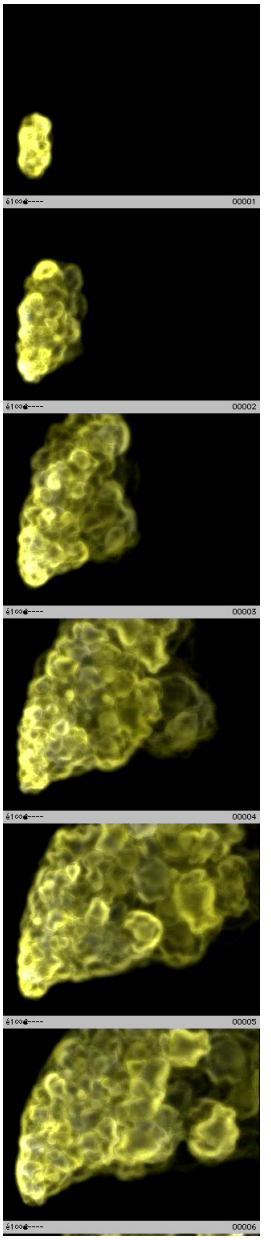
Max Grow Speed
Max Grow Speed determines the fastest speed at which any of the smoke can grow.

NOTE The Smoke always grows from the time it is born to the time it fades out it is
growing.

NOTE The smoke will start out semi-transparent and move towards being more opaque. Once it gets to its maximum opacity, it will travel towards transparency again. (It starts transparent, goes solid, then goes transparent again.)

Fade Up Speed

Fade up speed determines the rate at which the smoke changes from completely transparent to its maximum opacity (below).



Fade Out Speed
Fade Out Speed determines the rate at which the smoke changes from its maximum opacity to completely transparent.

TIP The smokes life is determined by the sum of Fade Up Speed and Fade Out Speed.

The Smoke will roll or rotate over time. The rotate speeds determine to what degree this will take place.

Min Rotate Speed
Min Rotate Speed determines the slowest rate at which the smoke will rotate.

Max Rotate Speed
Max Rotate Speed determines the fastest rate at which the smoke will rotate.

Min Opacity
Min Opacity determines the most transparent or see through that the smoke can appear.

Max Opacity
Max Opacity determines the maximum amount of how solid or opaque the smoke can appear.

Horiz Dispersion
Horiz Dispersion controls how much the smoke will randomly drift horizontally. When this is set to zero, the smoke will drift straight up. The higher this number is set, the more the smoke will move with some horizontal direction.

Wind Horiz
Wind Horiz provides the capability of allowing air flow to interact with the smoke. This determines the degree of horizontal movement in a particular direction (as opposed to Horiz Dispersion which moves the smoke horizontally randomly and not all in one direction).

Wind Vert
Wind Vert increases or decreases the vertical speed of the smoke. This can be used to increase the initial speed which in many cases starts at zero.

SnowStorm

SnowStorm creates a realistic simulation of a winter storm with complete control. It also simulates gusts of wind and you can have the flakes land and stick to a logo.

SnowStorm is another of the particle systems that handles a single task very well and very easily. If you just let the default settings render (with After Effects 4 you can just press the Zero key on the numeric keypad) with Effect Only selected in Apply Mode, you will see a beautiful example of what the snow plug-in can do.

The snow plug-in has been designed so that the snow drifts in a particular direction, but also includes a great deal of chaotic motion.

The Snow System determines the quantity, size, distribution and other behaviors for the individual snow flakes. The Wind, Gravity, Lilt area controls the characteristics of the overall direction and fall pattern of the snow flakes.

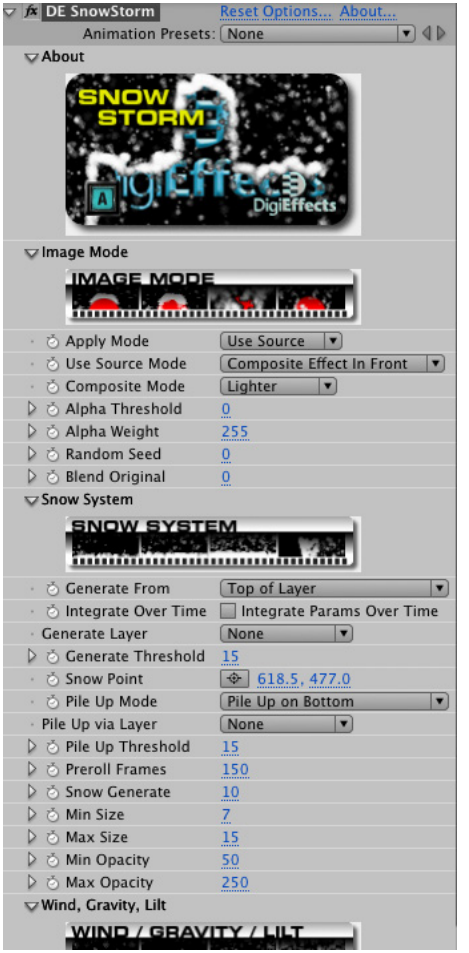


Image Mode
Apply Mode
Use Source Mode
Composite Mode
Alpha Threshold
Alpha Weight
Random Seed
Blend With Original
Generate From

Snow falls on the alpha channel of the logo.

Snow can pile up on the bottom.

Integrate Over Time
Generate Layer
Generate Threshold
Snow Point
Controls in this section are described in the "Using the Plug-ins" section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.

Snow System

Pile Up Mode

Don't Pile Up
When selected, Don't Pile Up will allow the snow to disappear as it hits the bottom of the layer.

Pile Up On Bottom
When selected, Pile Up On Bottom will stick and pile up as it hits the bottom of the layer.

Pile Up on Alpha > Threshold via Vert Height
Pile Up on Alpha > Threshold via Vert Height will cause the snow to pile up on the first vertical pixel IN THE ALPHA CHANNEL detected. The threshold control will determine the minimum opacity of a pixel in the alpha channel to pile up on. α means alpha.

Pile on RBG > Threshold via Vert Height
Pile on RBG > Threshold via Vert Height will cause the snow to pileup on the first vertical pixel in the image detected. The threshold control will determine the minimum brightness level of the pixels in the image as the first pixel to pile up on.

Pile on Alpha > Threshold via 2D
Pile on RGB > Threshold via 2D creates a mask that works in all directions to define areas of the layer that snow will stick and pile-up over.

Pile Up Threshold
Threshold cuts off the darker parts as areas that the snow can pile upon. The higher this number is set, the lighter the pixels must be to allow the snow to pile up.

NOTE The objects (mask or pixels) that the snow falls onto cannot be moving. If it is, the snow buildup information will become confused. The snow will not stick to moving objects.

Preroll Frames
This control allows for the start of the effect before the first frame of the clip. This control is designed to give you the ability to have the effect already generating snow before the clip shows. If you did not have this ability, the effect would have to start with no snow. By pre-rolling, you can have the effect already generating snow from the first frame in the layer. The value corresponds to the number of frames before the first frame that the effect starts generating the snow.

Snow Generate
Snow Generate determines how much snow will be created per frame.

Min Size
Min Size determines the size of the smallest flakes created by the Snow plug-in.

Max Size
Max Size determines the size of the largest flakes created by the Snow plug-in.

Min Opacity
Min Opacity determines the most transparent any part of any flake can be.

Max Opacity
Max Opacity determines the most opaque any part of any flake can be.

Lilt, Gravity, Wind, Gusts
Lilt is the random motion that individual snow flakes have. While snow tends to fall all in a single direction, the individual flakes have a chaotic motion that allows them to move randomly - sometime with the general direction of the snow, sometimes against it. This individual flake motion is defined as lilt. While this is a global setting, it is applied to each flake individually. A random number between the min and max amounts will be picked and applied to each flake.

Min Lilt Amount
Min Lilt Amount determines the minimal distance that the lilt will move the flake.

Max Lilt Amount
Max Lilt Amount determines the maximum distance that the lilt will move the flake.

Min Lilt Frequency
Min Lilt Frequency determines the minimum speed at which the snow flake will move due to the lilt.

Max Lilt Frequency
Max Lilt Frequency determines the maximum speed at which the snow flake will move due to the lilt.

NOTE Amount determines how far, frequency determines how fast.

Gravity
Gravity determines how quickly the snow will fall. The higher this is set, the faster that the snow will fall.

Wind Horiz.
Wind Horiz determines how much horizontal push can be applied to the snow to give the appearance of horizontal wind.

Wind Vert
Wind Vert increases or decreases the vertical speed of the snow. This can be used to increase the initial speed which in many cases starts at zero.

Gust: A gust is a sudden brief rushing or driving of wind.

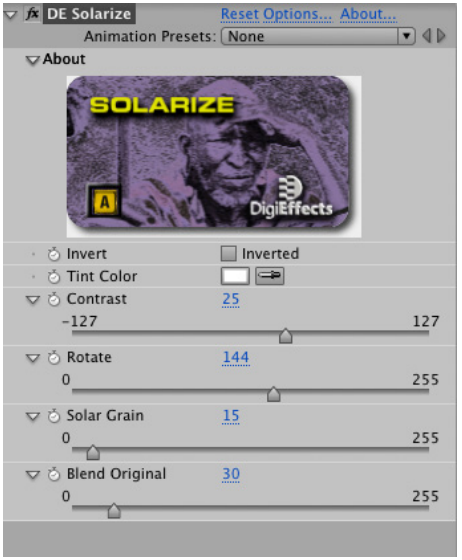
Gust Probability
Gust Probability defines the likelihood that a gust of wind will occur at any given time in the composition.

Gust Max Duration
Gust Max Duration determines the greatest number of frames that a gust can last.

NOTE This does not dictate a fixed number of frames that all gusts will last. It only determines the maximum amount of time that it can last.

Gust Max Speed
Gust Max Speed determines the maximum amount that the gust can push the snow when a gust does occur.

Solarize



Solarize is a photographic process simulation for creating the look of double exposed photographic paper that forces the silver salts to gather around areas that have contrast. This gives a "solarized" or "Sabbatier" look.

Slide the Contrast and Rotate sliders (Especially Rotate) back and forth and you will find an area that works well with your footage.

TIP This effect is fast enough that you can usually do it with the Option key held down for real-time updates.

Invert
Invert applies the Solarize effect to the layer after the layer to which the effect has been applied has been inverted (i.e., dark pixels become light

Great organic photographic effect.

Interesting artistic implementation.

and light pixels become dark in the inversion process - then the solarize effect is applied).

Tint Color

Tint Color allows for color tinting of this grayscale effect. When this is set to white, the effect will be a strictly grayscale effect.

Contrast

Contrast adjusts the tonal range of the image before the Solarize Effect is applied. When these numbers are high, the difference between light and dark becomes exaggerated. Small (between 5 and 35) amounts of contrast will often enhance the solarize effect.

Rotate

Rotate controls the appearance of the solarize effect.

Solarize can have drastically different appearances that are defined by the subject matter. Work with this control to define the basic look that is being created.

Solar Grain

Solar Grain adds a grain pattern to the footage.

NOTE If you have a portion of the image that appears to be posterizing after applying the Solarize effect, it is probably from the grain settings. Try turning the grain to zero and see if the posterization is still visibile

Blend Original

Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Sparks

This effect performs a complete physics simulation of sparks. You can control the color, the gravity, wind and other parameters. You can also have the spark particles bounce off a logo.

Sparks was designed to simulate the sparks that occur with some cutting tools, but users of the plug-in have shown us that there are many other tricks that can be done with it.

Some of the most interesting uses of Sparks are as a fountain style firework, keyframed as a volcano tossing out its white hot magma, and in conjunction with Electrical Arcs as the results of the Arcs cutting through metal.

The Spark System determines how the sparks will be cast and from where, and what the sparks will look like when they are cast. We suggest that you make a special note of the Bounce Mode controls. Creating a separate layer and loading it as the Bounce via Layer controls is an excellent way of enhancing the realism of the sparks.

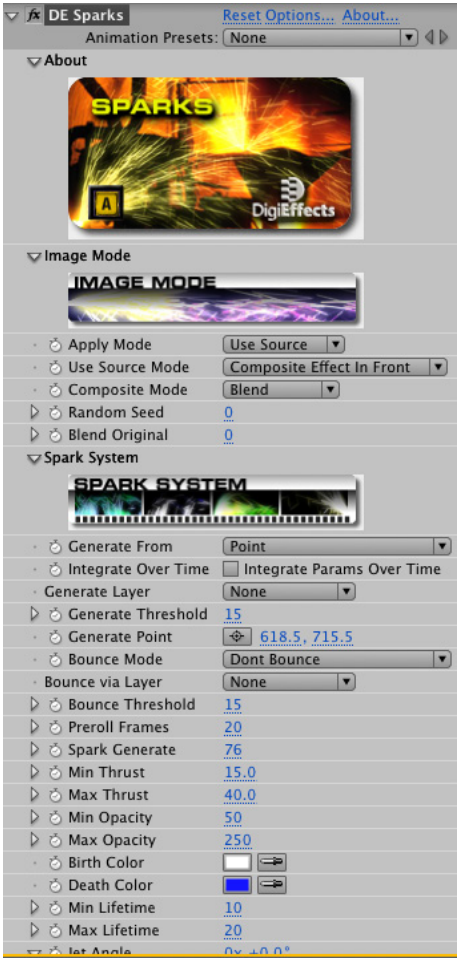
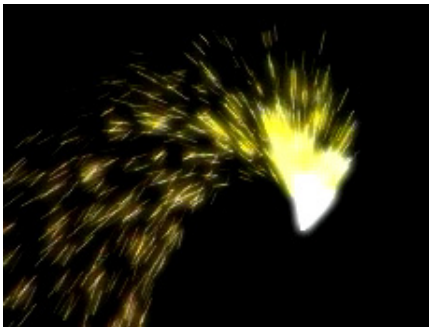


Image Mode

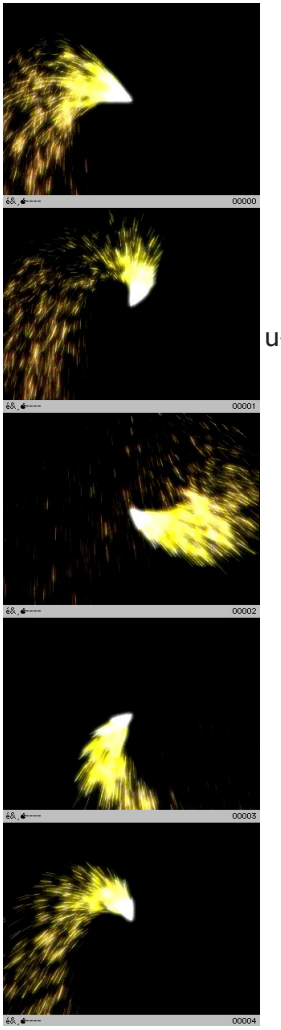


Sparks from a point, spun around animating Jet angle.

Cool sparkler effects.

Apply Mode
Use Source Mode
Composite Mode
Random Seed
Blend Original
Generate From
Generate Layer
Generate Threshold
Generate Point

Controls in this section are described in the "Using the Plug-ins" section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.



Spark System

Bounce Mode

The Bounce Mode pop-up provides the capability to give the appearance that the particles can bounce off of other objects. This pop-up provides several methods for bouncing the particles.

Don't Bounce

When selected, the particles will fall through the bottom of the layer.

Bounce on Bottom

When selected, if the sparks reach the bottom they will bounce off of it.

Bounce on Alpha > Threshold via Vert Height
This is used to bounce the sparks from an image that has an alpha. When this is selected, the sparks will be bounced in areas that are inside the alpha or mask. Threshold defines the capability to lower the amount of area inside the mask that can bounce sparks. When the Generate Threshold slider (below) is set to zero, all areas will bounce sparks. As this number increases, more transparent areas of the alpha will no longer be able to bounce sparks.

Bounce on RGB > Threshold via Vert Height
Bounce on RGB > Threshold via Vert Height is used to bounce the sparks from an images threshold. When this is selected, the sparks will be bounced in areas that are brighter than the threshold setting. When the Generate Threshold slider (below) is set to zero, all areas will bounce sparks. As this number increases, darker areas of the image will no longer be able to bounce sparks.

Bounce on Alpha > Threshold via 2D
Bounce on Alpha > Threshold via 2D bases where it bounces up based on the mask values dependent on where it hits the bounce area.

Bounce on RGB > Threshold via 2D
Bounce on RGB > Threshold via 2D bases where it bounces up based on the rgb values dependent on where it hits the bounce area.

Bounce Via Layer
Bounce Via layer can be used to assign a different image for the bounce controls values.

TIP This is a VERY useful way to determine where the sparks will bounce. For example, if you want the sparks to bounce off of a wall that is in the footage, mask the wall on a separate layer, load it into the timeline with its visibility off and use that layer as the bounce layer with Bounce on Alpha > Threshold via 2D

as the Bounce Mode.

Bounce Threshold
When one of the bounce methods is selected, this slider controls the threshold level at which sparks will be bounce. When this is set low, any luminance level or alpha level can bounce sparks. When this is set high, only the brightest luminance levels or alpha levels bounce sparks (i.e., this will make it so transparent/darker areas cannot bounce sparks).

Preroll Frames
This control allows for the effect to start before the first frame of the clip. This control gives you the ability to have the effect already generating sparks before the first frame of the clip. If you did not have this ability, the effect would always start with no sparks. By pre-rolling, you can have the effect already generating sparks before the first frame in the layer. This value corresponds to the number of frames before the first frame of the clip to start generating the sparks. Please **NOTE** Pre-roll will not generate sparks before the first frame of the layer to which the sparks plug-in has been applied.

Spark Generate
Spark Generate determines number of sparks that to be generated per frame.

Min Thrust
Min Thrust determines the speed of the slowest sparks that are generated.

Max Thrust
Max Thrust determines the speed of the fastest sparks.

NOTE Thrust Min and Max determine the extremes of speed of the sparks. Any individual spark will move at a speed between these values.

Min Opacity
Min Opacity determines the least opaque (most transparent) that a spark can be.

Max Opacity
Max Opacity determines the most opaque that a spark can be.

Birth Color
Birth Color determines the color of the spark when it is first created.

Death Color
Death Color determines the color of the sparks just before they disappear (end of lifetime). The spark colors will transition from birth to death color.

Min Lifetime
Min Lifetime determines the shortest amount of time that a spark can exist.

Max Lifetime
Max Lifetime determines the longest time that a spark will exist.

Jet Angle
Jet Angle determines the general direction of the flow of sparks.

NOTE This will determine the direction of the flow of the sparks for any of the choices in the generate from pop-up.

Jet Width
Jet Width determines how far from the Jet Angle that the particles can be projected. When this is set to a low number, the stream of sparks will be tightly focused. When this is set to a high number, the sparks will flow out in numerous directions.

Wind Gravity Air Resistance

Gravity
Gravity pulls the particles down towards the bottom of the layer.

NOTE Gravity combines with thrust , wind and air resistance to determine the distance and speed that a particle will travel.

Wind Horiz
Wind Horiz determines the amount of horizontal push that the wind can give to the sparks.

Wind Vert
Wind Vert increases or decreases the vertical speed of the sparks. This can be used to increase the initial speed which in many cases starts at zero.

Air Resistance
Air Resistance determines the amount of deceleration that the air will drag on the sparks. The greater this number, the shorter the distance that the sparks will travel.

Glow

Glow Radius
Glow radius determines the maximum distance that a glow will extend from the spark particles.

Glow Intensity
Glow Intensity controls the brightness level of the glow.

Glow Colors can be defined by two colors: the color that is closest to the spark and the color at the outer edge of the glow.

Glow Inner Color
This color defines the glow color closest to the arc.

Glow Outer Color
This color defines the glow color that is outside edge of the glow.

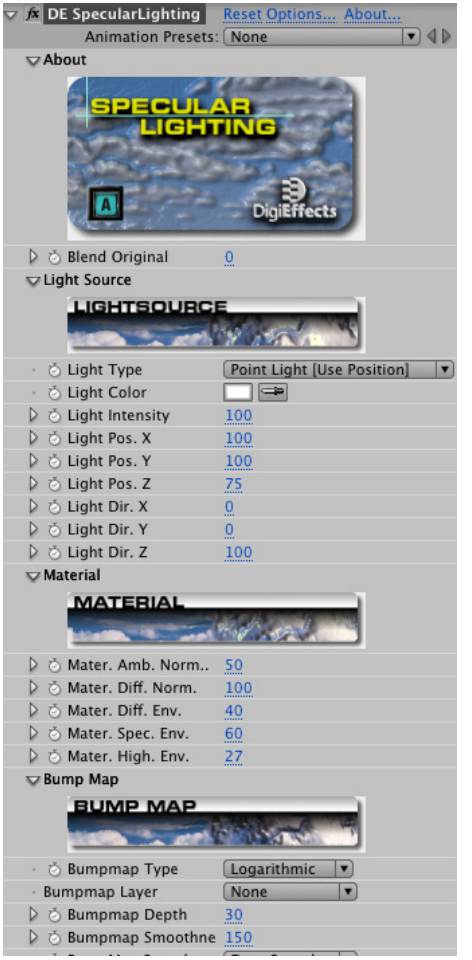
Color Bias
Color Bias defines the balance of the Glow Inner Color and Glow Outer Color. Lower numbers will increase the value of the Glow Inner Color in the overall appearance of the glow. Larger numbers tip the balance towards the outer color.

Glow Mode

Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Specular Lighting



This effect simulates a single colored light source shining on the image as if it were a piece of plastic. The light source can simply shine on the surface, or you can automatically create a bump-map of the source image, and the plug-in will simulate hills and valleys over the image. You can control the smoothness and depth of the "bumpiness".

You can control the surface look via the Materials sliders. These will determine the Ambient, Specular, Highlight and Diffuse Lighting parameters. These control how the surface material interacts with the light source. You can make the surface look glossy, flat or something in-between.

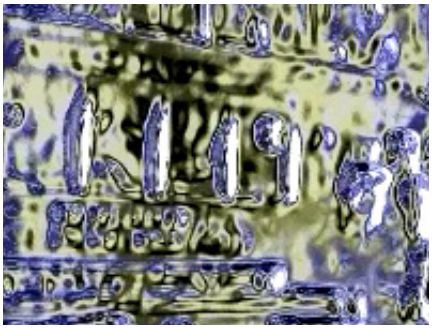
Light Source

Light Type
Light Type determines the Light modeling mode:

Point Light
Light emanates from a point close to the surface.

Directional Light
Light is reflected at an angle from a light source infinitely far away.

Create a glossy bump-mapped effect from any image.



Create wild color effects with the "Environment" mapping.

Light Color
Light Color determines the color of the light source.

Light Intensity
Light Intensity controls the overall brightness level of the light source.

Light Pos. X
Light Position X determines the horizontal light location.

Light Pos. Y
Light Position Y determines the vertical light location.

Light Pos Z
Light Position Z determines the height of the light source above the surface of the image.

Light Dir X
Light Direction X determines the horizontal direction of the light source.

Light Dir. Y
Light Direction Y determines the vertical direction of the light source.

Light Dir. Z
Light Direction Z determines the outward direction of the light source.

Material
The material parameters define the kind of material the surface is made of so the effect can determine the reflective properties of the surface.
Mater Amb Norm.

Material Amb Norm determines the Ambient light reflection amount. This controls the ambient lighting.

Mater Diff Norm
Material Diff Norm determines the Diffuse light reflection amount. This controls the diffuse lighting.

Mater Diff Env
Material Diff Env. determines the Diffuse light envelope. This controls the amount of diffuse light in the image.

Mater Spec Env
Material Spec Env determines the Specular reflection envelope amount. This controls the amount of bright "specks" in the high parts of the image.

Mater High Env
Material High Env determines the Highlight envelope amount. This controls the reflectiveness of the highlight areas just below the specular areas.

Bump Map

Bumpmap Type
To apply a bumpy-looking surface to the image, select a bump map type other than "None". The different shapes curve the surface differently.

None
No bump map applied.

Logarithmic
A plateau look.

Sine
Smoothly curving, straight in the middle.

Spherical

Completely smoothly curved, no straight lines.

Linear
Slanted.

NOTE These settings must be experimented with, as they are difficult to describe succinctly with words.

Bumpmap Layer
None
Layer "X"

Bump Map Layer allows for the use of the bump-map height of another layer in the current composition. That layer can be chosen here.

Bumpmap Depth
Bumpmap Depth determines the "deepness" of the bump-map effect.

Bumpmap Smooth
Bumpmap Smoothness determines the "softness" of the bump-map effect.

BumpMap Stretch
The source bumpmap image can be stretched if the size of the source image and the bumpmap image are different.

Don't Stretch
Don't Stretch will clip the Bumpmap layer to the upper-right of its image to match the size of the source image.

Stretch
Stretch will squish the Bumpmap layer to fit the size of the source image.

Environment Map

Environment Map
It is possible to use another image as a color look-up table for an environment-mapping effect and it can be chosen here. Use the Bumpmap smoothness and Bumpmap depth to control the mapping effect. The environment is created using an inverse-spherical model.

None
Use Environment Map

TIP Essentially, you are looking at the inside a reflective ball that has a texture map derived from the "Environment Layer."

Environment Layer
The layer selected here is used as a 2 dimensional spherical color lookup table for the environment mapping effect.

None
Layer "X"

Thermograph

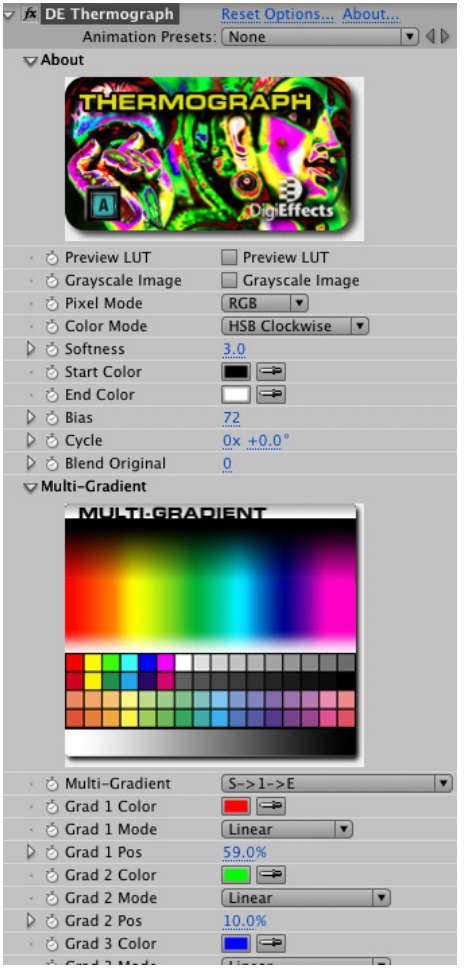
Thermograph is an extremely flexible color remapping effect. The basic idea is that you can take any color in the image and replace it with a color based on a color gradient.

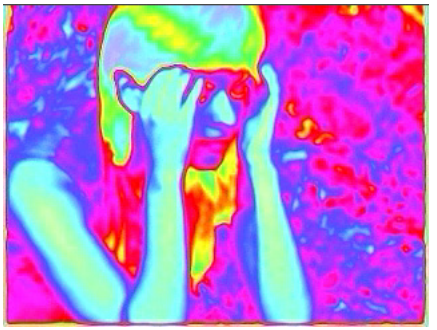
When in Preview Mode, the gradients on the left are the source colors. The gradient on the right are the colors that will be replaced.

In other words, the colors in the source layer are represented by the gradients on the left, and these colors are all replaced by the colors in the gradients on the right.

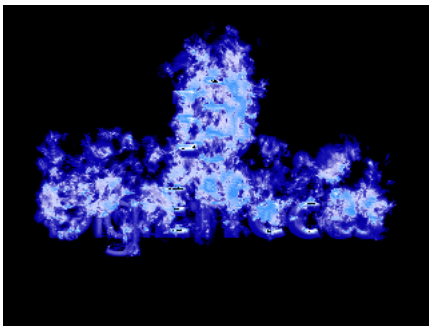
Preview LUT
Preview LUT (Look Up Table) provides the ability to look at the colors that will be used to replace the existing colors in the image.

When this is checked on, the colors will be shown along with Red, Green, Blue and Gray color ramps so that it is possible to judge what color will be replaced with the LUT.





Thermograph reinterprets the colors in the image to another set of colors defined by a gradient.



Recolorize flames and other particle systems.

Grayscale Image
Grayscale Image will turn the source footage gray before it applies the thermograph effect.

Pixel Mode
The Pixel Mode pop-up allows for the application of the thermograph effect to a single channel only or to all three at once.

Color Mode
Defines how the colors are interpolated. RGB Modes interpolate along a straight line using the Red, Green and Blue channels. HSB modes interpolate through the colors as if they were a rainbow.

Softness
Softness blurs the underlying image to create smoother transitions between colors.

Start Color
Start Color defines the color that will replace the darkest colors in the footage.

End Color
End Color defines the color that will replace the brightest colors in the footage.

Bias
Bias controls the balance of color or the quantity of color between the start and end colors in the gradient. When this is shifted to the right, the end color will be more dominant in the gradient, when it is shifted to the left, the start color will be more dominant.

Cycle
Cycle allows for rotating the LUT (look up table) that is used to replace colors in the footage. This makes it possible to cycle a few colors through your footage repeatedly.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

MultiGradient

Multi-Gradient
This pop-up determines how many colors will be in the gradient. The colors will always fall in between the start and end colors. For Example, S ->1 ->E, will provide for a 3 color gradient starting with the start color, transitioning to the Grad 1 Color and ending with the End Color.

Grad 1 Color
When a multi-Gradient is selected in the Multi-Gradient pop-up, this will determine the color of the Grad 1 position.

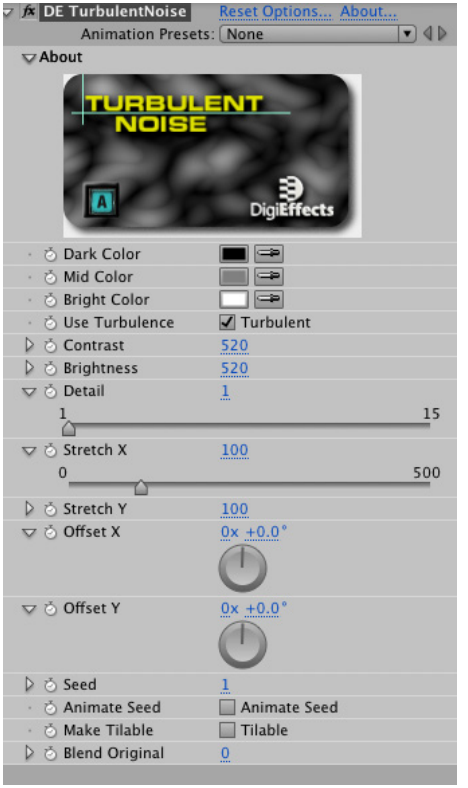
Grad 1 Mode
Controls the interpolation method used between the gradient color positions.

Grad 1 Position
Grad 1 Position determines the position of the Grad 1 color on the gradient relative to the Start Color and End Color.

A good way to see the results of this is to set this to red and slide the control left and right. You should be able to do this with the option key held down and receive near real-time feedback. Notice that as you approach 100% that bottom or end color of the gradient gives a very hard red line. This is because it is squeezing most of the End Color out. As you get to 100%, the entire interior of the layer turns red. This is because you have completely removed the End Color.

As additional gradient colors are selected in the Multigradient pop-up, the Grad 2 to Grad 10 controls are made functional. Each of these works in the same manner as the Grad 1 controls with each additional color being added at thier respective positions in the gradient.

Turbulent Noise



This effect creates a “turbulent” noise pattern that is useful for creating texture and distortion effects. See the sample projects for an example of this.

Dark Color
Dark Color Defines the darkest shade that can occur within the turbulent noise. This defines the areas that look deepest. If this is set to a lighter shade, there will be less color differential to work with when adjusting Contrast and Brightness.

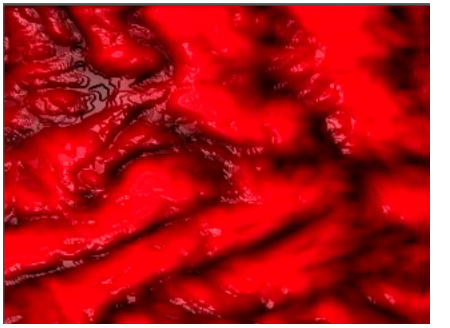
Mid Color
Mid Color is the median color between the dark and light colors.

TIP If Dark Color is left to black and light color is left to white, then giving Mid Color a color tone will tint the turbulent noise (i.e., this will work like a tint control).

Bright Color
Bright Color is the lightest color in the Turbulent Noise.

Use Turbulence
When checked, Use Turbulence will make the noise look more complex, a more “gnarled” appearance.

The water was created using Turbulent Noise and HLS Displace.



Skin/blood texture is created with Turbulent Noise.

Contrast
Contrast increases or decreases the contrast levels in the noise. The lower the number, the less the contrast ending in solid black.

Brightness
Brightness controls the total level of how dark or light the noise is.

Detail
Detail controls the amount of fine turbulence that can be seen. The higher this is set the rougher the turbulence will appear. This also increases render time when set high.

Stretch X
Stretch X warps the turbulence vertically (along the X axis) as this number increases.

Stretch Y
Stretch Y warps the turbulence horizontally (along the y axis) as this number increases.

TIP Stretch behaves like a zoom where the turbulence looks farther away as these numbers
increase.

Offset X
Offset X allows for motion of the field of turbulent noise along the X axis. By increasing this number the turbulent noise will drift from right to left.

Offset Y
Offset Y allows for motion of the field of turbulent noise along the Y axis. by increasing this number the turbulent noise will drift from bottom to top.

Seed
Seed controls the overall look of the noise pattern.

Animate Seed
When Animate Seed is checked on, the noise will generate a new, random pattern with each new frame.

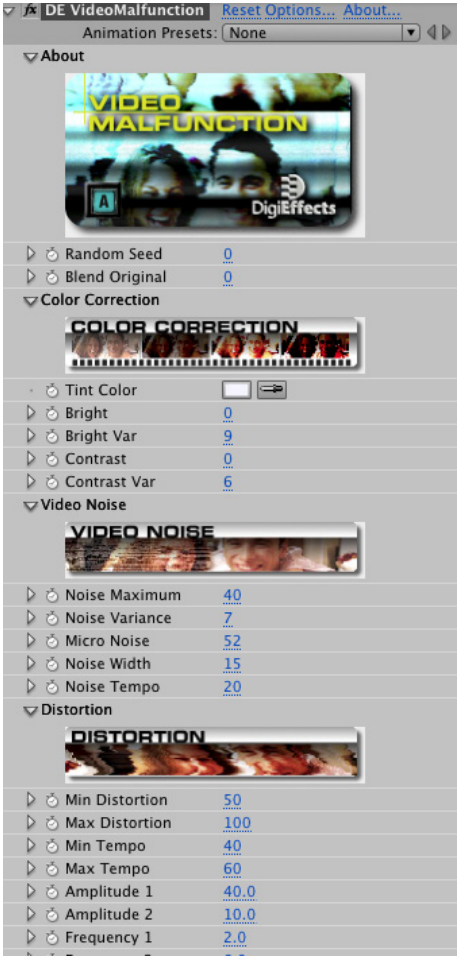
Make Tileable
Make Tileable creates a noise pattern that will repeat upon itself seamlessly when it is offset extensively.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Video Malfunction

This effect uses a unique combination of different effects with built-in randomization to create a true simulation of television electromagnetic interference patterns. There are seven sections that control different aspects of the effect.

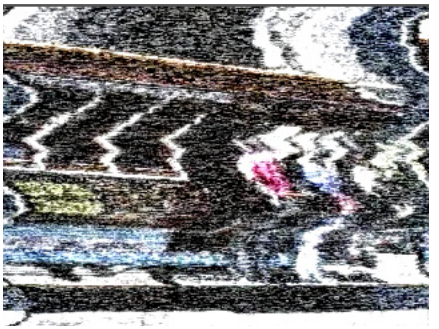
By modifying the various parameters you can easily simulate all kinds of abnormal effects including video noise, ghosting, intermittent static, vertical hold problems, tinting and horizontal tracking distortions.



Random Seed
Random Seed is the seed value (think of it as a start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly change values and the animation will not be smooth.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.

Color Correction



Creating video distruptions could not be easier!

The text/date at the bottom has the effect applied.

Tint Color
This is the color to tint the video image.

Bright
This controls the overal brightness in the image.

Bright Var
This controls the maximum variability of the brightness in the image. The larger this value the more “bright and dark banding” in the luminosity of the image.

Contrast
This controls the overall contrast level in the image.

Contrast Var
This controls the maximum variability of the brightness in the image. The larger this value the more “contrasty” the image may become.

Video Noise

Noise Maximum
This is the maximum amount of noise allowed in the image. Larger values will create more bright and dark “grainy” areas.

Noise Variance
This is the allowed variability in the noise over time. Larger values cause more intense “noise bands” vertically.

Micro Noise
This controls the amount of basic noise. This is another way to add noise to the image that will not be modified over time.

Noise Width
This is the maximum length of the “noise runs”. Larger values mean longer noise runs.

Noise Tempo
This is how often the noise will change. Larger numbers will cause the noise patterning to change LESS often (more frames between noise changes)

Distortion
There are 2 components to the distortion which are combined together to give a single horizontal displacement value. The first component is defined by "Max Distortion" and the Tempo parameters. The second component is defined using 2 sine waves added together with a random value added in. These second components are controlled by the Amplitude, Frequency, Speed and Offset Variance parameters.

Max Distortion
This defines the maximum amount of horizontal distortion allowed. Larger number create more left-right distortions.

Min Tempo
This is the minimum number of frames to hold a distortion phase. The distortion changes its value after a randomly selected number of frames between "Min Tempo" and "Max Tempo". Larger values hold the distortion for a longer amount of time.

Max Tempo
This is the maximum number of frames to hold a distortion phase. The distortion changes its value after a randomly selected number of frames between "Min Tempo" and "Max Tempo". Larger values hold the distortion for a longer amount of time.

Amplitude 1
This controls the amplitude of the first sine-wave generator.

Amplitude 2
This controls the amplitude of the second sine-wave generator.

Frequency 1
This controls the frequency of the first sine-wave generator.

Frequency 2
This controls the frequency of the second sine-wave generator.

Speed 1
This controls the speed of the first sine-wave generator.

Speed 2
This controls the speed of the second sine-wave generator.

Offset Variance
This adds a random value to the sine wave amplitude.

Glow
Glow is intended to create a glow pattern around the video noise after it has been distorted which often occurs

on older television receivers.

Size
This defines the radius of the glow.

Intensity
This conrols the brightness of the glow.

Threshold
This controls the minimum luminance value a pixel must have before it will begin to glow. Higher values prevent the darker portions of the image from glowing.

Ghosting
Ghosting creates a horizontal “echo” that simulates reflections and interference patterns of electromagnetic energy as it is transmitted through space to its reception point. There are at most 3 ghost patterns, and you can define the maximum “sway” with the Ghost Offset parameters.

The Weight parameters define the opacity of the particular ghost image. It is possible to over-weight the ghost images, which will make the image brighter than the original.

Ghost Offset 1
Defines the maximum horizontal movement per frame of this ghost image.

Ghost Offset 2
Defines the maximum horizontal movement per frame of this ghost image.

Ghost Offset 3
Defines the maximum horizontal movement per frame of this ghost image.
Primary Weight

This is the opacity of the source (un-ghosted) signal.

Ghost 1 Weight
Controls the opacity of this ghost image.

Ghost 2 Weight
Controls the opacity of this ghost image.

Ghost 3 Weight
Controls the opacity of this ghost image.

Rolling Bar
This creates a dark bar that runs vertically on an image when it's refresh phase is slightly different than the video capture device recording its screen. It's a bit technical, but you can see the real-world effect easily yourself by recording a computer video monitor with a video camera.

Bar Height
This defines the height of the bar as a percentage of the source image size. Larger values make a larger bar.

Bar Speed
This controls how fast the bar rolls up or down the screen. Larger values move it faster.

Bar Darkness
This controls how dark the bar is. Larger values make a darker bar.

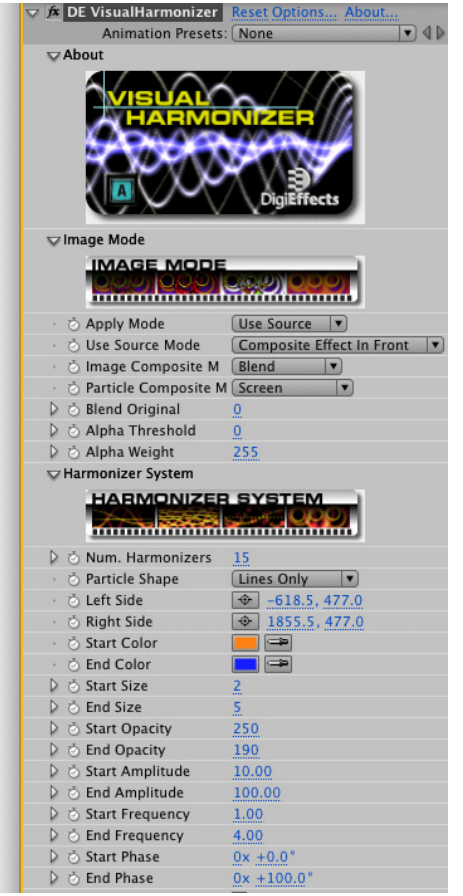
Vertical Hold
This simulates a malfunctioning vertical hold mechanism, or the loss of a vertical sync due to electromagnetic interfrence.

Roll Probability
This defines the chance per frame that a vertical hold malfunction “roll” will occur. If it occurs, Roll Length defines the maximum number of frames that the vertical hold malfunction will last.

Roll Length
Defines the maximum duration of a vertical hold malfunction, expressed in frames.

Roll Speed
This defines the maximum speed that a the verical hold will“roll.”

Visual Harmonizer

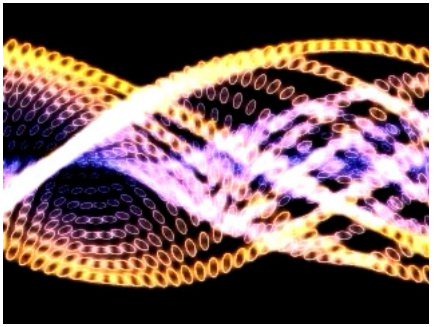


Visual Harmonizer creates stunning animated images based on a series of sine waves which are rendered as a series of particles or as simple lines.

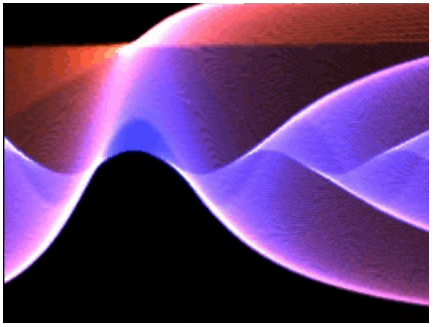
Each of these harmonizer shapes are controlled by the frequency (how close together the waves occur), amplitude (how high each wave will go) and phase (determines the position of the peaks and valleys of the waves in the Harmonizers.)

Keyframe the start and end controls for each of these settings to determine moving wave patterns and experiment with differing numbers for the start and end values.

Image Mode
Apply Mode
Use Source Mode
Image Composite Mode
Particle Composite Mode
Blend Original
Alpha Threshold
Alpha Weight
Controls in this section are described in the “Using the Plug-ins” section starting on page 13 of this manual. Refer to that section for instructions on how to use these parameters.



Visual Harmonizer images are vibrant.



Smooth swooping effects for backgrounds.

Harmonizer System

Number of Harmonizers
Number of Harmonizers defines how many bars are created with the Visual Harmonizer. The more Harmonizers created, the slower the render.

Particle Shape
Particle Shape defines the basic look or appearance of the bars created with Visual Harmonizer. Each of these particle shapes gives a significantly different look, especially when Use Spacing (below) is checked on.

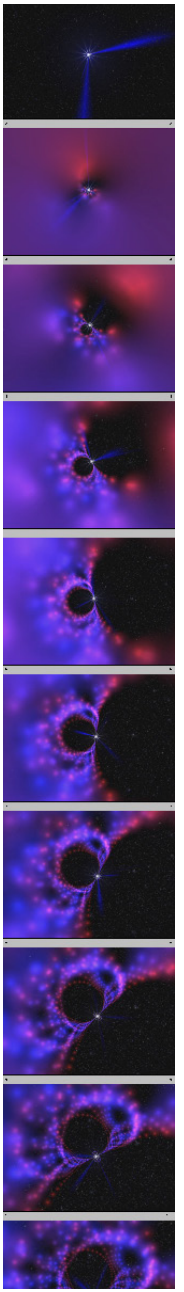
Start P**oint / End Point**
These points define the left side and right side of the effect.

TIP If you want the Harmonizer to run top to bottom instead of side to side, use Effect Only in the Apply Mode pop up. Then rotate the Rotation control under the Layer->Transform menu.
NOTE The Transform controls are After Effects controls and are available on the After Effects Time Line. Select the layer that has Visual Harmonizer applied and press the R key to access the rotation controls easily.

Start Color
Start Color is the color of the first frequency or wave.

End Color
End Color is the color of the last frequency.

Start Size
Start Size is the thickness of the first or start frequency.



End Size
End Size is the thickness of the last frequency. Each of the frequencies in between will vary in width in a linear manner between the start and end size.

Start Opacity
Start Opacity determines the transparency or opacity of the first frequency.

End Opacity
End Opacity determines the transparency or opacity of the first frequency.

Start Amplitude
Start Amplitude determines the height of the first frequency.

End Amplitude
End Amplitude determines the height of the last frequency.

NOTE Load the preset *Simple Waves*. Notice that the start and end amplitudes are different and that that is generating variations on the height of the frequencies. Also note that while start amplitude is set to zero, there are still waves in the harmonizer.

Start Frequency
Start Frequency determines how often the start frequency goes up and down in a wave form. The higher this number, the greater the number of wave forms.

End Frequency
End Frequency determines how often the end frequency goes up and down in a wave form.

Start Phase
Start Phase determines the alignment of the waves of the first frequency.

End Phase
End Phase determines the alignment of the waves of the last frequency.

TIP If you animate one of the phases 360 degrees while leaving the other at the start point of the animated phase, the waves of the animated phase will line up with all of the other frequencies, lose that alignment and come back to it again at the end of the 360 degree loop.

Use Spacing
When this is checked, Use Spacing breaks the frequencies from solid lines into individual dots (depending on the Particle Shape).

Spacing Distance
Spacing Distance is only valid when the Use Spacing box is checked. When it is checked, this determines the amount of space between the individual particles that make up the frequencies.

Spacing Phase
Spacing Phase determines the location of the particles that make up the frequencies.

TIP By animating this parameter, it is possible to make the particles crawl along the frequencies.

Glow

Glow Radius
Glow Radius controls the distance from the harmonizers edge on both sides of the harmonizers that the glow colors will travel away from the harmonizers. The glow also covers over the interior of the harmonizers, so when this is turned completely off, the harmonizers look much thinner.

Glow Intensity
Glow Intensity controls the brightness level of the glow. Since the glow radius covers both the interior and exterior of the harmonizers, when the glows intensity is increased it affects the interior of the harmonizers more than the outside of the harmonizers.

Glow Colors are defined by two colors, the color that is closest to the harmonizers and another layer of color that lies just outside of the harmonizers.

Glow Inner Color
This color defines the glow color closest to the harmonizers.

Glow Outer Color
This color defines the glow color that is outside the harmonizers and the Glow Inner Color.

Color Bias
Color Bias defines the balance of the Glow Inner Color and Glow Outer Color.

Lower numbers will increase the value of the Glow Inner Color in the overall appearance of the glow. Larger numbers tip the balance towards the outer color.

Glow Mode

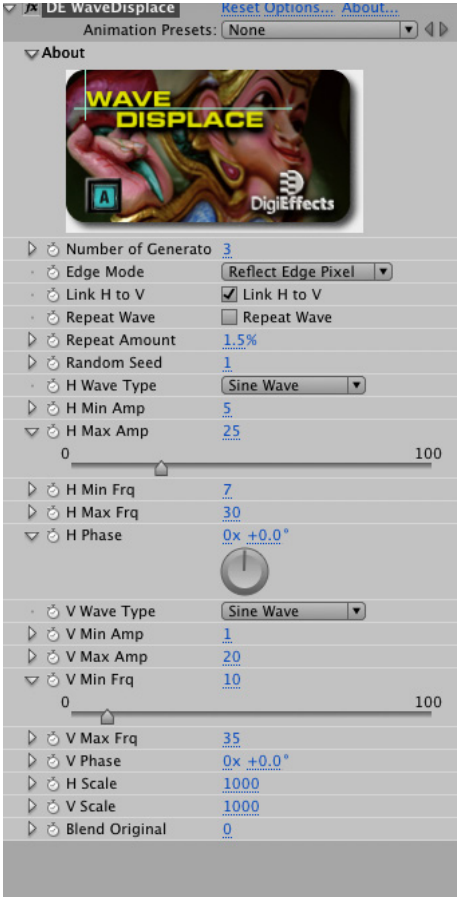
Screen
Screen multiplies the inverse brightness values of the colors in all layers. The resulting color is never darker than the original.

Add
Add combines the color values of the layer and the underlying colors. The resulting color is lighter than the original.

Wave Displace

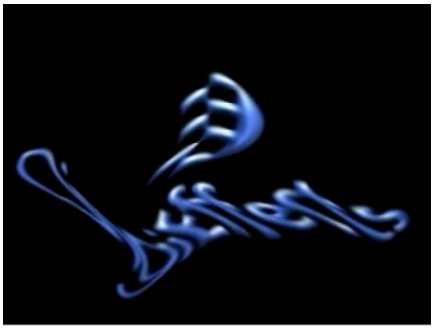
Wave Displace is a seemingly simple distortion effect that gives complete control over all of the details of a wave distortion. While this is true and it is a very flexible wave distortion plug-in, the really interesting stuff starts when you check on Repeat Wave.

Turn “Repeat Wave” on and you will see some very extreme flowing distortions that are very interesting.



Number of Generators
Number of Generators determines the number of distortions that are used in the wave patterns. This basically is a degree of effect control. The higher the number, the greater the distortion.

Edge Mode
Edge mode determines how the pixels will be filled along the edges of the image when the distortion moves the footage such that the footage below or background color can be viewed. By using one of these methods, the footage below will not show through.



Repeated wave distortions create liquid effects.

Strange distorted patterns.

Repeat Edge pixels

Repeat Edge Pixels will repeat the pixel closest to the uncovered area. This will give a stretched look from the edge of the distorted footage to the edge of the comp.

Wrap Around

Wrap Around will use pixels from the opposite side of the footage that have been distorted and use it to replace the empty areas.

Reflect Edge Pixels

Reflect Edge Pixels will use a reflection of the closest pixels to the edge of the areas that are uncovered due to the Wave Displace Effect. This is the most often used setting.

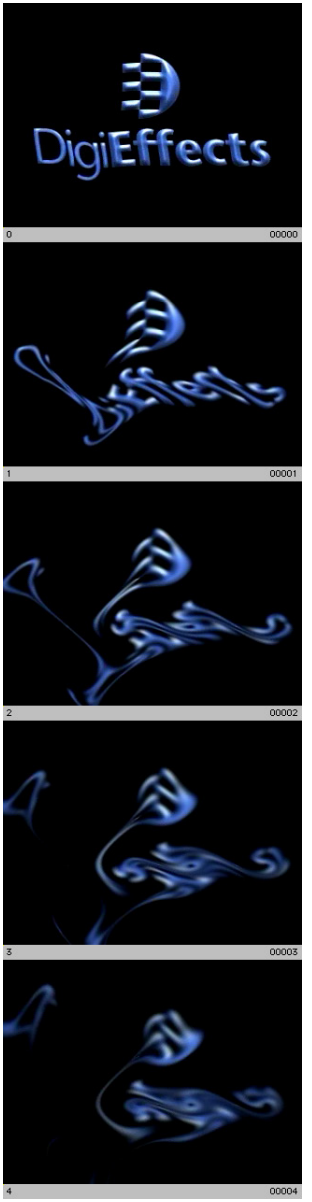
Link H to V

Link H to V will disable the horizontal controls and base the horizontal values off of the vertical controls.

Repeat Wave

Repeat Wave uses a wave shape to distort an image multiple times. It takes the wave that is defined in the controls below and applies it multiple times to the footage. For example, the wave effect will be applied once to the first frame, twice to the second frame, three to the third frame and on and on.

TIP If you think about what that means, you will realize that frame 10 will take 10 times longer to render than frame one. Long movies will take a long time to render.



TIP Used on a logo it can generate very interesting smoky looks.

NOTE Quality should be set for final render in order to use Anti-aliasing and smooth distortions. When using "Repeat Wave", you MUST set the quality to High.

Repeat Amount
Repeat Amount determines the strength of the wave that is applied when Repeat Wave is checked on. This control is disabled when Repeat Wave is unchecked.

Random Seed
Random Seed is the seed value (think of it as a start point) for any randomization that occurs in the plug-in. Do not animate this as it will cause the effect to jump or randomly change values and the animation will not be smooth.

H Wave Type
This defines the wave shape for the distortion.

Sine
Uses a sine wave as a distortion shape.

Square
A box wave distortion shape.

Triangle
A tent-shaped wave distortion shape.

H Min Amp
H Min Amp is the minimum amplitude (think of amplitude as wave height or as the strength of the distortion) of the horizontal waves.
H Max Amp

H Max Amp is the maximum amplitude of the horizontal waves used in the distortion.

H Min Frq
H Min Frq determines the minimal number of times of how often the waves of distortion occur. When this number is set high, the waves occur with greater frequency.

H Max Frq
H Max Frq determines the maximum number of times that waves will occur along the horizontal axis.

TIP By using minimums and maximums for frequency and amplitude, you can create non-uniform patterns of distortion. If you want your distortion to be uniform, just set the minimum and maximum numbers to the same value.

H Phase
H Phase determines the position of the waves highs and lows (generated by amplitude) along the lines of the waves (generated by
frequency).

V Wave Type

V Min Amp
V Min Amp is the minimum amplitude of the vertical waves

V Max Amp
V Max Amp is the maximum amplitude of the vertical waves used in the distortion.

V Min Frq
V Min Frq determines the minimal number of times of how often the waves of distortion occur. When this number is set high, the waves occur with greater frequency.

V Max Frq
V Max Frq determines the maximum number of times that waves will occur along

the horizontal axis.

V Phase
V Phase determines the position of the waves highs and lows (generated by amplitude) along the lines of the waves (generated by frequency).

H Scale
H Scale zooms into or out of the wave distortion effect along the horizontal (or "X") axis.

V Scale
V Scale zooms into or out of the wave distortion effect along the Vertical (or "Y") axis.

TIP H Scale and V Scale allow for global changes to the look of the distortion without having to change each of the parameters the same percentage.

Blend Original
Blend Original will blend in the unaffected original layer with the affected layer. The higher this number, the more of the original layer will be blended in with the affected footage.